STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Superfund
401 Church Street
Nashville, TN 37243-1538

January 11, 1996

RECD
JAN 17 1996

Robert P. Morris
State Project Officer
North Superfund Branch Remedial Section
Waste Management Division
US EPA Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

Dear Mr. Morris:

Enclosed are three Preliminary Assessments. The Tennessee Division of Superfund recommends that the Welsh Company, TND045502952, Wastelan # 06391, 80-503, and the Mid-State Plating Company, Inc., TND004046033, Wastelan # 06366, 19-572, receive further investigation. The Tennessee Division of Superfund recommends that ABECO Die Casting, Inc., TN0001097948, Wastelan # 06360, receive no further investigation.

Sincerely,

John T. Weakley
Site Assessment Coordinator

Cc: Bill Forrester

PRELIMINARY ASSESSMENT REPORT

Mid-State Plating Company
Nashville, Davidson County, Tennessee
Tennessee Superfund ID No. 19-572
CERCLIS No. TND004046033
Wastelan #06366

PRELIMINARY ASSESSMENT REPORT

MID-STATE PLATING COMPANY

NASHVILLE, DAVIDSON COUNTY, TENNESSEE

CERCLIS NO. TND 00 404 6033

TENNESSEE FILE NO. 19-572

1/23/96
SRH
SL - H
Refer to ERRB

PREPARED FOR THE

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF SUPERFUND

IN COOPERATION WITH

WASTE MANAGEMENT DIVISION

U. S. ENVIRONMENTAL PROTECTION AGENCY

DATE: NOVEMBER 1, 1995

Prepared By:	Reviewed By:	Approved By:
Obi Nkpa	Brenda Apple	
Obi Nkpa	Brenda K Apple	John T Weakley
Project Manager	Manager	Central Office
Date: 1-5-96	Date: 1/5/96	Date: 1/11/96

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Report: Preliminary Assessment
Narrative Report

Site: Mid-State Plating Company
Nashville, Davidson County, Tennessee

CERCLIS No: TND004046033

TN File No: 19-572

Prepared By: Obi Nkpa, Project Manager
Tennessee Department of Environment and Conservation
Division of Superfund (TDSF)

Date: November 1, 1995

1.0 INTRODUCTION

This Preliminary Assessment (PA) was conducted under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, and the Superfund Amendments and Reauthorization Act (SARA) of 1986; and under the terms of a cooperative agreement between the Tenneessee Division of Superfund (TDSF) and the U.S. Environmental Protection Agency (EPA).

The purpose of the PA was to gather information about the site and its environs in order to assess any immediate or potential threat to human health and environment arising from improper disposal of hazardous substances, and to determine the need for further action under the empowerment.

The activities undertaken to achieve the objectives involves the following :

a) file searches;
b) site, target, and pathway reconnaissance;
c) health and environmental data acquisition;
d) site eligibility determination; and
e) waste, pathway, and site score evaluations.

2.0 SITE CHARACTERIZATION

2.1 Location

The site is located at the northeast, dead-end corner of 14th Avenue North (Ref.1,Fig.1,Fig.2). It is bounded to the south by two residential lots; to the north by a wooded, undeveloped lot with Metro Center Boulevard further away; to the east also by wooded, undeveloped lot(s) and then Looby Center; and to the west by 14th Avenue North. The geographical coordinates are west latitude 36°11'30" and north longitude 86°48'19" (Ref. 2).

2.2 Site Description

As shown on the site sketch there is only one building on the site, and this is situated at about the center of the 5-acre lot. This building occupies an area of roughly 137feet x 161feet, and houses all former plating operations, offices, storage and rest areas, etc.; the office area is at the southwest corner of the building. The west end of the property lot, the front entrance to the building, is paved and slopes downwards in the north direction. The north and east ends of the property slope downwards from the building and are overgrown areas. The southeast end of the property is grassy and slopes downwards from the building. The southwest end of the property is partly paved and partly grassy, and is relatively flat. The site is fenced on the north, east and southeast ends only (Fig.3).

2.3 Climate

The average winter temperature in Davidson County is 40° F with average daily minimum of 30° F. Summer temperatures average 78° F with an average maximum of 89° F. The total annual precipitation is approximately 48 inches (Ref.3).

2.4 Ownership/Operational History

Mid-State Plating Company was owned by Ms. Nova Lee Butler when it went into bankruptcy proccedings on May 18, 1988. The site was later purchased by Ms. Patricia Cunningham at a public auction on September 14, 1988 at which time the building still housed tanks, vats, etc. some of which contained plating chemicals (Ref.4).

Mid-State Plating Company, Inc began metal plating operations in 1961 (Ref.5). There is no knowledge that the facility was known by a different name or engaged in a different industrial manufacturing at any earlier time. By August 1994 Ms. Cunningham was leasing the facility to the Crown Tent and Awning Company (Ref.6), and by July 1995 Crown Tent had moved and it was being used for storage of vehicle tires (Ref.7).

2.5 Waste Characteristics

Mid-State Plating Company operated a nickel, chromium, and zinc metal plating facility utilizing the Thompson-Hayward Chemical Company electroplating process (Ref.8). Cyanide was also used as a primary processing chemical. Electroplating rinse water was discharged into the Metro Nashville public sewer. Plating sludge and some spent chemicals were stored until disposed (Ref.5).

After purchasing the facility in 1988, Ms. Cunningham never operated the facility as a plating company. Some of the wastes previously left on-site by Mid-State Plating company were removed through the

bankruptcy court. Other wastes were taken to another plating facility, Electroplating Inc., in Davidson County (Ref.22).

2.6 Regulatory History/RCRA Status

In the 1980's up until after the company went bankrupt, the site was monitored by both the Tennessee Division of Solid Waste Management (DSWM) and the Metropolitan Nashville Department of Water and Sewerage Services (Metro DWS). By 1986 DSWM had identified the facility as a small quantity generator. On February 17, 1989 Metro DWS referred a complaint of chemical spill at the facility to DSWM (Ref.2). By April 10, 1989 plating drums and containers were placed outside of the building by the new owners of the facility where those without lids filled up with rain water and overflowed onto the ground; plating racks, vats, and drums were strewn about the property (Ref.9). Sometime prior to February 21, 1991 the inside of the building was pressure-washed by the new owners of the facility and it is believed that plating wastes or residues was washed out of the building (Ref.4).

3.0 GROUNDWATER PATHWAY

3.1 Geologic and Hydrogeologic Setting

The geology within a 4-mile radius of the site is represented by a Karst terrain made up of alluvial deposits underlain by Leipers/Catheys and then Bigby-Cannon limestone formations (Ref.10).

The alluvial deposits above the levels of the flood plains consist largely of slip-off slope deposits of sand, gray to brownish-orange, very fine- to fine-grained; gravel, gray to yellowish-orange and yellowish-brown, composed of pebbles and some small cobbles of chert, subangular to subrounded; and a matrix of brownish-orange, fine- to very coarse-grained quartz and chert sand with some quartz granules and small pebbles (Ref.10).

The Leipers and Catheys are limestone, argillaceous, nodular and shaly, medium-dark gray to brownish-gray, thin-bedded, fossiliferous; limestone, dark-gray (weathers pale yellowish-brown), fine-grained, thin- to medium-bedded; and calcarenite, medium-light gray to brownish-gray, coarse-grained, medium-bedded, crossbedded, contains brown phosphate pellets, weathers to brown phosphatic residuum. Basal beds contain abundant Constellaria. The thickness of the formation varies from 150 to 220 feet (Ref.10).

The Bigby-Cannon limestone in this area consists of three facies--Cannon limestone, Dove-colored limestone, and Bigby limestone--which replace each other vertically and laterally. Thickness of the formation varies from 60 to 110 feet (Ref.10).

The depth to the acquifer is approximately 40 feet (Ref.10).

3.2 Groundwater Targets

The wells within 4 miles of the site are utilized for industrial or commercial use and not for drinking water (Ref.11). Residents within this distance are served by a public water supply operated by the Metropolitan Nashville Water Services; the water comes from a surface source, and there are no known users of groundwater since public water is available (Ref.12). An artesian well located at the Werthan Bag Company plant on 8th Avenue and Taylor Street is within 2 miles of the site (Ref.13).

3.3 Groundwater Conclusions

There is no evidence of groundwater contamination, and there are no known users of groundwater since public water is available; therefore, this pathway is not a major concern.

4.0 SURFACE WATER PATHWAY

4.1 Hydrologic Setting

Surface water drainage from the site flows both northwesterly and northeasterly. The northwesterly flow progresses towards a swale 3/8 of a mile from the site; the northeasterly flow gets to a drainage ditch where it continues in the north and then the west directions before joining the nothwesterly-swale flow. The combined flow travels approximately 500 feet until it enters the Cumberland River at about River Mile 185.8, the Probable Point of Entry (PPE). The remainder of the 15 mile target distance limit is in the Cumberland River (Ref.1,Ref.14,Fig.4).

4.2 Surface Water Targets

The only water intake downstream of the PPE and within the 15-mile distance limit is at approximately River Mile 172.5 of the Cumberland River which serves the Harpeth Valley Utility District (Ref.1,Ref.12). This intake is about 13 miles downstream from the PPE; considering the river flow at greater than 10,000 cfs the dilution factor is very high (Ref.15).

4.3 Endangered Species and Sensitive Environments

The Cumberland River is classified for fishery, recreational, industrial, and agricultural use. The mussel population in this river represent the endangeared species or sensitive environments identified within boundary limits (Ref.16).

4.4 Surface Water Conclusions

No evidence of surface water contamination exists, and this pathway is not a major concern.

5.0 SOIL EXPOSURE AND AIR PATHWAYS

5.1 Physical Conditions

The site lies outside of the 500-year floodplain (Ref.17,Fig.5). It is partially fenced, the unfenced areas being the front entrance and the Southwest lot line. Apart from the front entrance to the building (west end of the site) which is paved, the rest of the ground surrounding the building is either heavily overgrown or grassy (Fig. 3). Significant plating contaminant spills occured to the north, east, and west sides of the site (Appendix A); migration to the north, south, and southeast will be aided by the downslopes in these directions.
No localized temperature inversions or other abnormal air circulations is known to exist within the site distance limits (Ref.18). There is no knowledge of any Metropolitan Nashville Air Pollution Control files indicating citizen complaints, company violations, or air releases (Ref.21).

5.2 Soil and Air Targets

The nearest residence is to the south of the site at about 35 feet away, with fourteen residences within 200 feet of the site boundary (Ref.7). There are 153 residences within 1/4 mile of the site (Ref.7), and the population within 4 miles is approximately 51,054 (Ref.19) which falls under census track 137 of the Metropolitan Government of Nashville and Davidson County (Ref.20,Fig.6).

5.4 Soil Exposure and Air Pathway Conclusions

Significant soil contamination most likely exists, and this pathway is of major concern. No individual population interviews were conducted to determine any adverse health effects.
No evidence of air contamination exists, and this pathway is not of major concern.

6.0 SUMMARY AND CONCLUSIONS

The groundwater pathway is of minor concern since public water supply is availble within a 4-mile radius of the site. There are no known domestic users of well water and there is no suspected release to groundwater.

The surface water pathway is of minor concern because although a sensitive environment/endangered species was identified, there is no evidence of surface water contamination attributable to the site, and the municipal water intake within the 15-mile distance limit is a long distance from the probable point of entry in a relatively high volume flow river that is likely to provide significant contaminant dilution.

The soil exposure pathway is the most likely source of potental contamination and is of major concern due to the lack of significant barriers to site access, the runoff routes that are prevalent, the relatively close proximity of residential homes, and the widespread nature of the potentially contaminated areas.

The air pathway is of minor concern because there is no known public complaints of air contamination.

Based on the information gathered in the course of this preliminary assessment further evaluation on the Federal level (a Site Investigation) is recommended to more fully characterize the site.

REFERENCES

1. U.S. Geological Survey (USGS); Nashville West, Nashville East, Scottsboro, and Whites Creek 7.5 Minute Series Tenneessee Topographic Maps, 1983.

2. Tenneessee Division of Superfund (TDSF) Potential Hazardous Waste Site Discovery Form; Brenda K. Apple; April 7, 1995.

3. Soil Survey of Davidson County, Tennessee, 1977. U.S. Department of Agriculture, Soil Conservation Service in cooperation with the University of Tennessee Agricultural Experiment Station.

4. Tennessee Division of Solid Waste Management (TDSWM) Files; Patricia Cunningham Letter; February 21, 1991.

5. TDSWM Files; Hazardous Waste Generator Notification Form; January 27, 1981.

6. TDSWM Inspection Report; James Cornwell; Report Date September 23, 1994.

7. Preliminary Assessment Logbook, Mid-State Plating Company, 1995.

8. TDSWM Files, Hazardous Waste Notification Summary Report, 1986.

9. TDSWM Files; Al Majors Letter; April 10, 1989.

10. U.S. Geologic Survey, Nashville West Quadrangle, Geologic Map, 1966.

11. Tennessee Division of Water Supply (TDWS), Computer Printout of Water Well Records for the Nashville 308NE Quadrangle; August 3, 1995.

12. TDWS Computer Printout of Public Water Systems in Tennessee; January 6, 1995.

13. Preliminary Assessment Report, Nashville Old Gas Company, TDSF# 19-567; February 18, 1994.

14. Tennessee Department of Transportation, Bureau of Highways, Drainage Map, 1974.

15. USGS, Water Resourses Data for Tennessee, Water Year 1994, TN-94-1.

16. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States, Volume 1, January 1992.

17. Federal Emergency Management Agency, Flood Insurance Rate Map# 4700400158C; June 2, 1993.

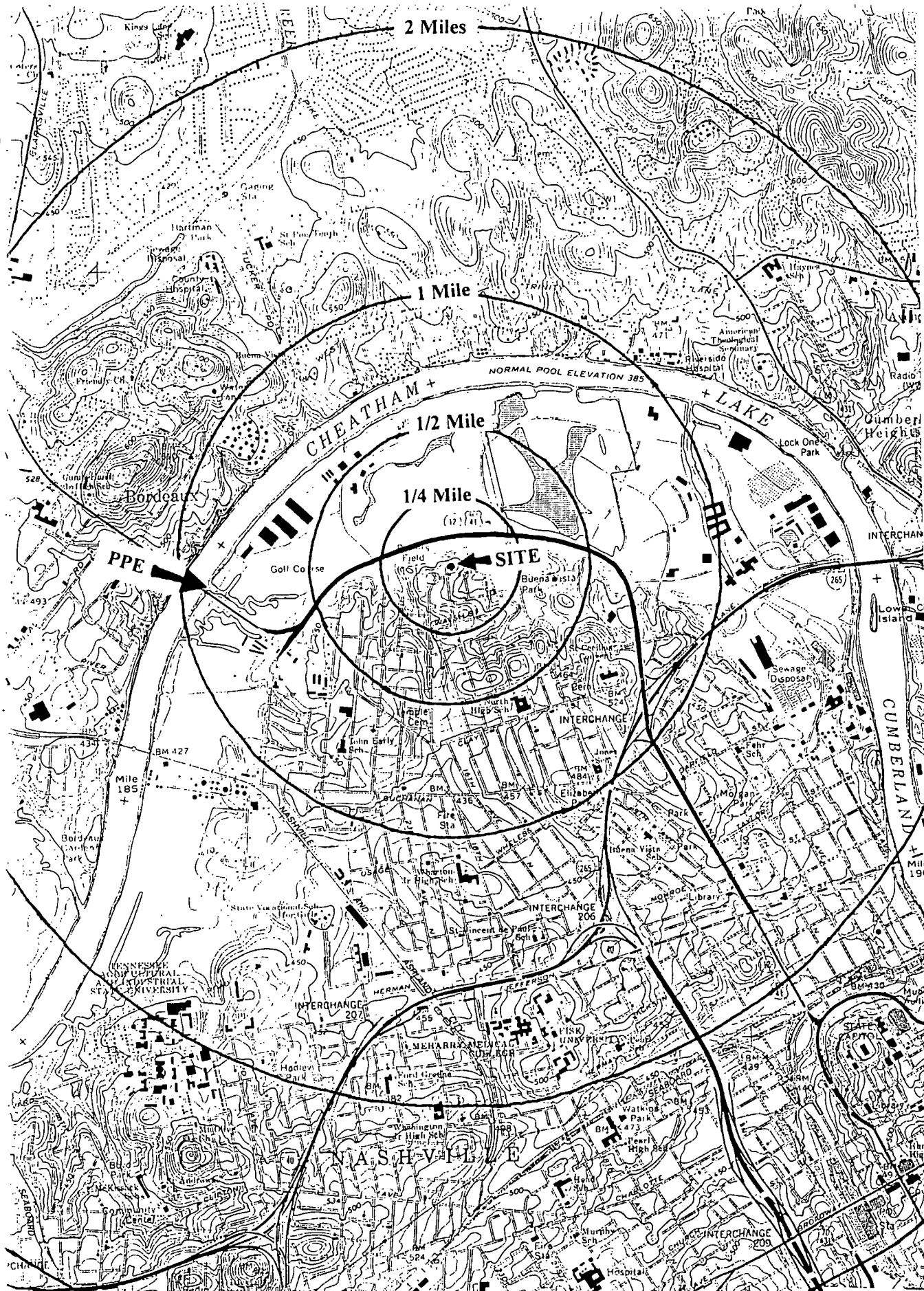
18. Mark Rose, National Weather Service, Personal Communication; August 9, 1995.

19. TDSF GEMS Database Computer Printout, August 7,1995.

20. Metropolitan Planning Commission, Nashville and Davidson County, Tennessee; Approved Census Tracts, 1990 U.S. Census.

21. Raymond Huffines, Metropolitan Nashville Air Pollution Control, Personal Communication; August 9, 1995.

22. TDSF Files; Brenda Apple Memorandum; September 28, 1995.



Mid-State Plating Company
Site Location Map
EPA ID# TND004046033
TDSF# 19-572

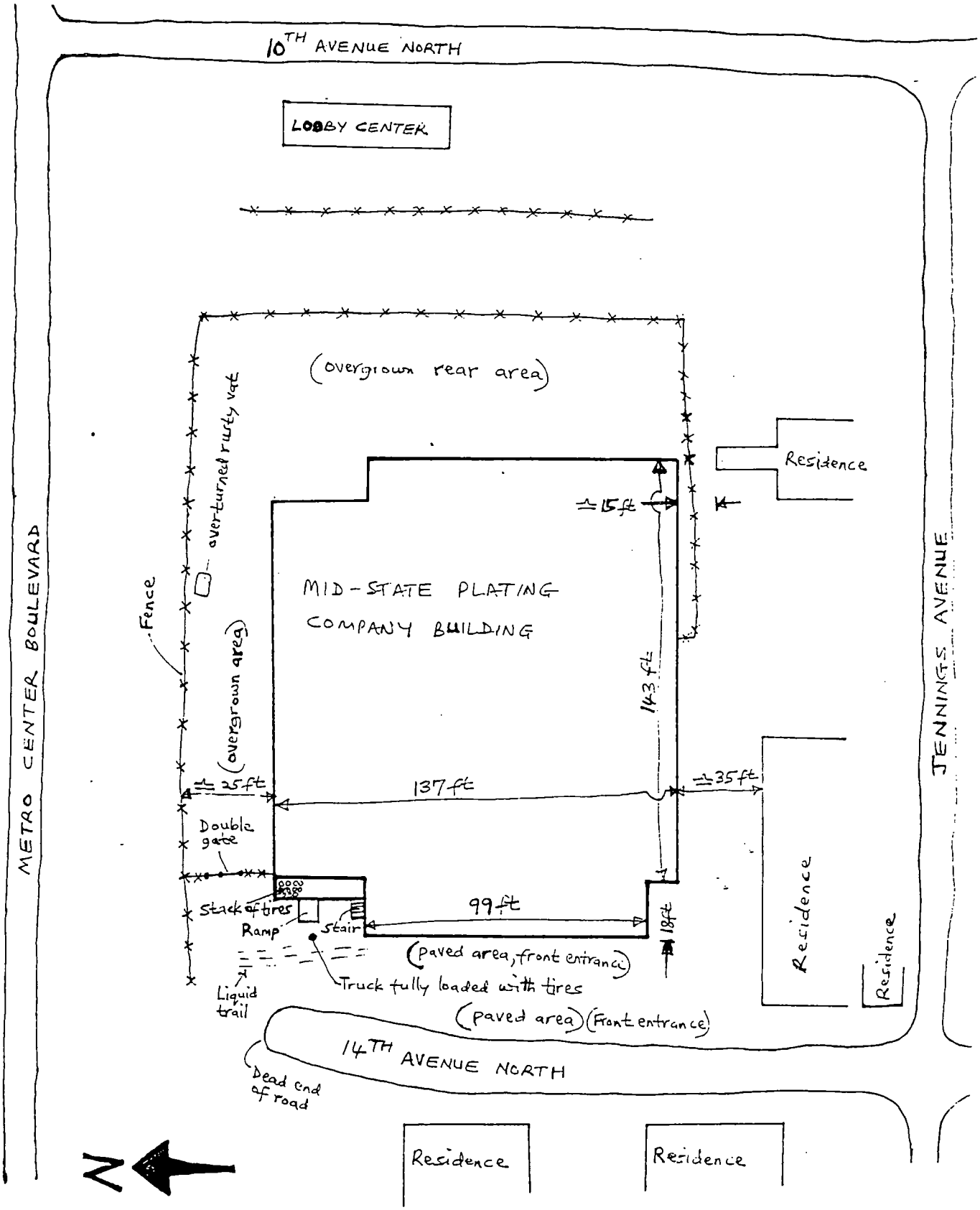
Figure 1

N

H-17
I-16 I 17 I-18
J-17

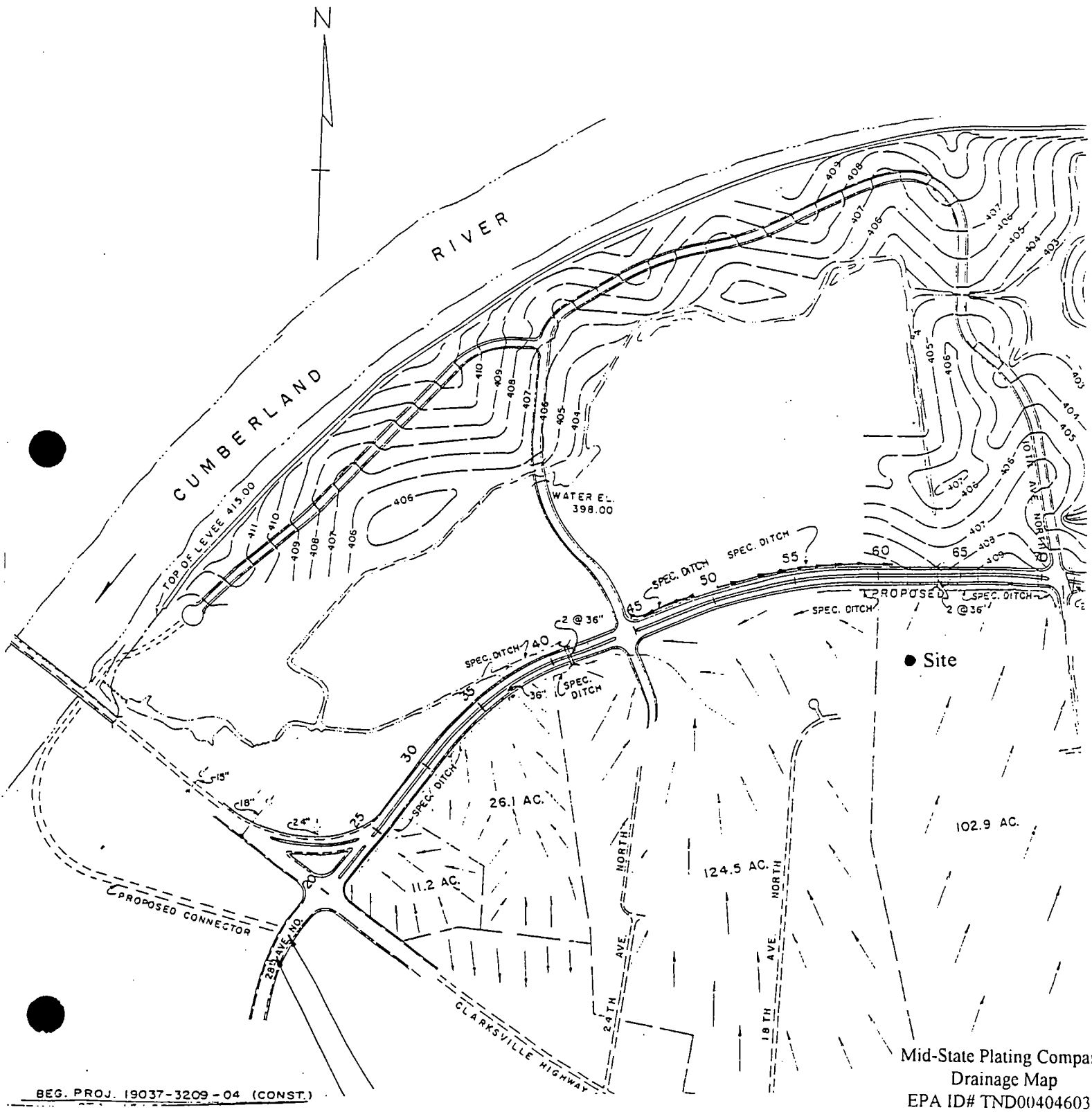
Mid-State Plating Company
Aerial Photo 1986
EPA ID# TND004046033
TDSF# 19-572

Figure 2



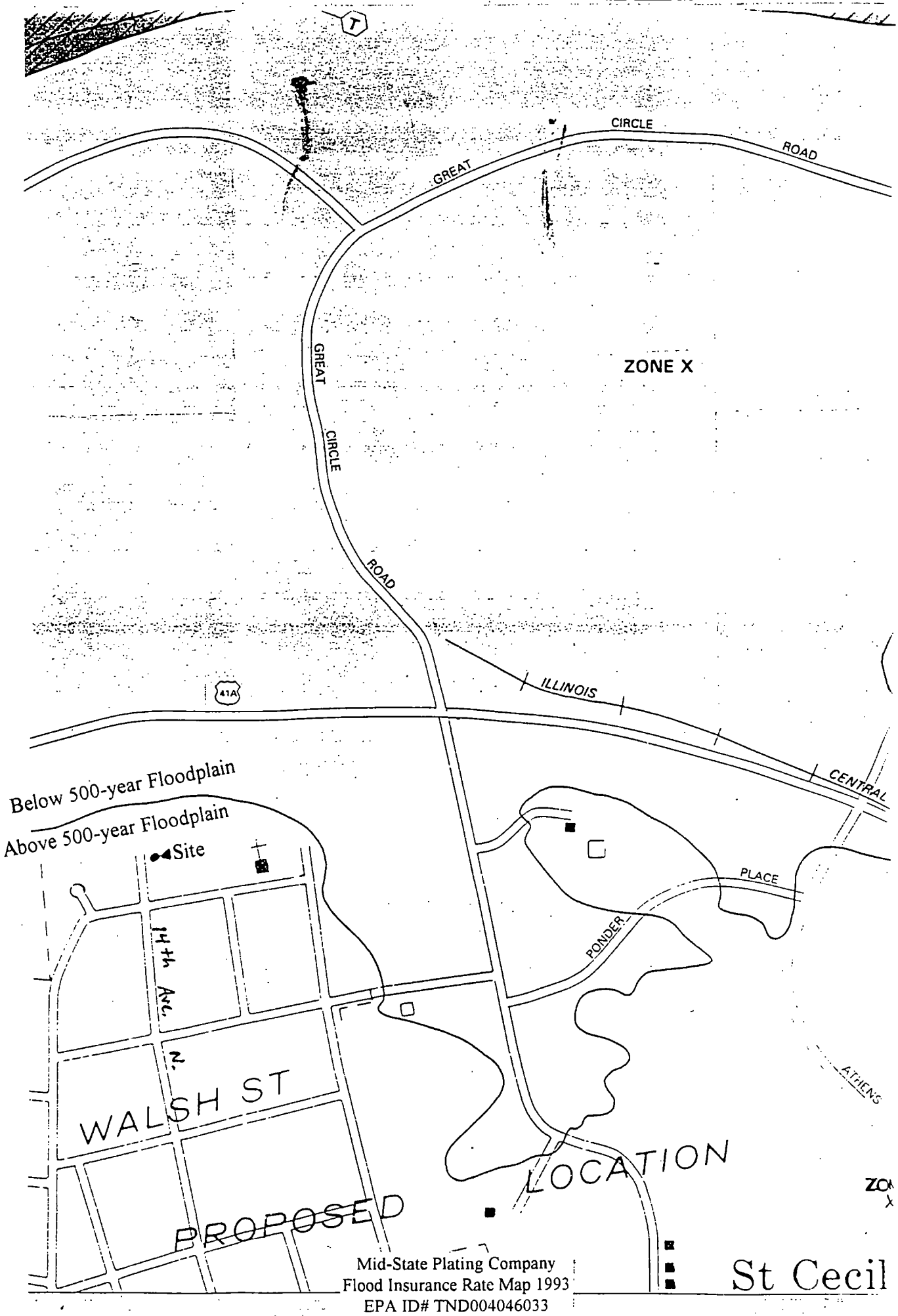
Mid-State Plating Company
Site Sketch
EPA ID# TND004046033
TDSF# 19-572

Figure 3



Mid-State Plating Company
Drainage Map
EPA ID# TND004046033
TDSF# 19-572

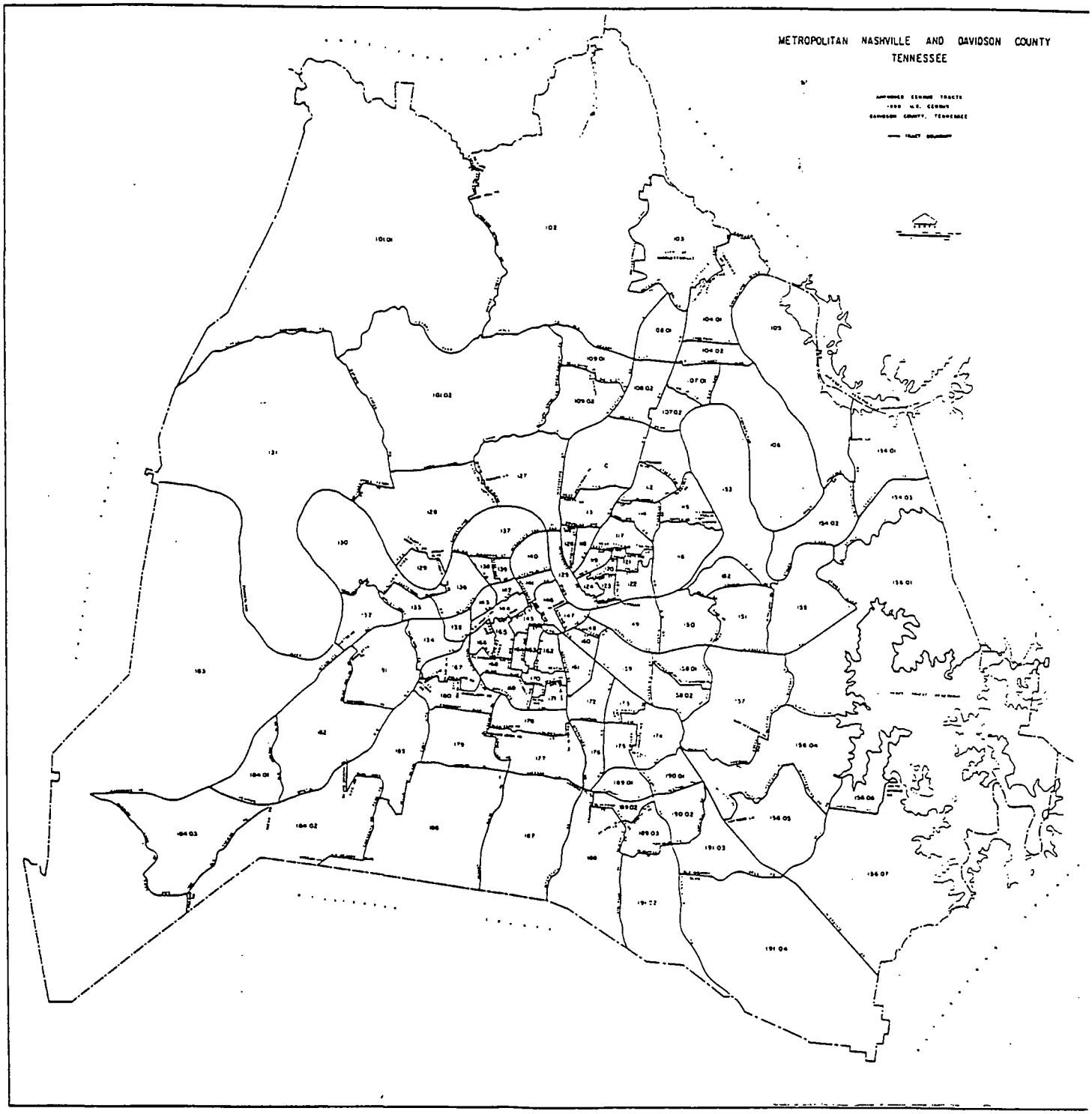
Figure 4



Mid-State Plating Company
Flood Insurance Rate Map 1993
EPA ID# TND004046033
TDSF# 19-572

Scale: 1" = 500'

Figure 5



Mid-State Plating Company
Census Tracts 1990
EPA ID# TND004046033
TDSF# 19-572

Figure 6

REFERENCE 1

U. S. EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 10459752 Site ID: TND004046033

Site Name: Mid-State Plating Company, Inc.

Nature of Material:

Map:	✓	Computer Disks:	
Photos:		CD-ROM:	
Blueprints:		Oversized Report:	
Slides:		Log Book:	

Other (describe): Site Map (Nashville East, TENN)

Amount of material:

Please contact the appropriate Records Center to view the material.

REFERENCE 2

NFO File

POTENTIAL HAZARDOUS WASTE SITE
SITE IDENTIFICATION ("DISCOVERY")

I. IDENTIFICATION

01 ST	02 SITE NUMBER
TN	TND004046033

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NUMBER, OR SPECIFIC LOCATION IDENTIFIER				
Mid-State Plating Company, Inc.	2424 14th Avenue North				
03 CITY	**04 ST**	**05 ZIP CODE**	**06 COUNTY**	**07 CO CODE**	**08 CONG DIST**
Nashville	TN	37208	Davidson	19	

09 DIRECTIONS TO SITE (Starting from nearest public road; enter up to 4 lines of text)

From I-265, exit onto Metrocenter Blvd; go north and turn left onto 10th Avenue N.; turn right onto Kellow; turn right onto 14th Avenue N.. Building is on right just past Jennings Avenue and two residential duplexes.

Lat. 36° 11' 30" Long: 86° 48' 19"

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, residential, mailing)			
Patricia Cunningham (As of 7-19-94)	508 Ridge Court East			
03 CITY	**04 ST**	**05 ZIP CODE**	**06 TELEPHONE NUMBER**	
Old Hickory	TN	37138	615/758-0958	
07 OPERATOR (If known and different from owner)	**08 STREET (Business, residential, mailing)**			
Nova Lee Butler, Owner/Operator, Mid-State Plating	1800 Oakwell Farms Lane, Apt. 1410			
09 CITY	**10 ST**	**11 ZIP CODE**	**12 TELEPHONE NUMBER**	
Hermitage	TN	37076		

13 TYPE OF OWNERSHIP (Mark one; use "insert" mode)

X A. PRIVATE _ B. FEDERAL (Agency name): _____ _ C. STATE _ D. COUNTY
_ E. MUNICIPAL _ F. OTHER (Specify): _____ _ G. UNKNOWN

IV. HOW IDENTIFIED

01 DATE IDENTIFIED	02 IDENTIFIED BY (Mark all that apply; use "insert" mode)
4/7/95 (Month/Day/Year)	_ A. CITIZEN COMPLAINT _ B. INDUSTRY _ C. STATE/LOCAL GOVERNMENT _ D. AERIAL RECONNAISSANCE X E. RCRA INSPECTION _ F. SURFACE IMPOUNDMENT ASSESSMENT _ G. OTHER EPA IDENTIFICATION _ H. OTHER (Specify): _____

V. SITE CHARACTERIZATION

01 TYPE OF SITE (Mark all that apply; use "insert" mode)

_ A. STORAGE _ B. TREATMENT _ C. DISPOSAL X D. UNAUTHORIZED DUMPING _ E. OTHER (Specify): _____

02 SUMMARY OF KNOWN PROBLEMS (Provide narrative description; enter up to 6 lines of text)

The Mid-State Plating Company entered into bankruptcy proceedings May 18, 1988. Plating wastes were to be removed from the facility. The property was purchased by the present owner on September 14, 1988. Prior to removal of some of the drummed waste, the drums were placed outside of the building by the new owners where open containers were allowed to fill with rainwater and overflow onto the ground. The City of Metro referred a complaint of run-off from the facility to the Div. of Solid Waste 2-17-89. Although the building is no longer utilized as an electroplating facility, plating racks, vats and drums are strew about the property. The property is not totally fenced off.

03 SUMMARY OF ALLEGED OR POTENTIAL PROBLEMS (Provide narrative description; enter up to 5 lines of text)

It is believed that under the present ownershiip, plating sludges were washed out of the buidling and onto the ground when the facility was being pressure washed and cleaned inside.

VI. INFORMATION AVAILABLE FROM

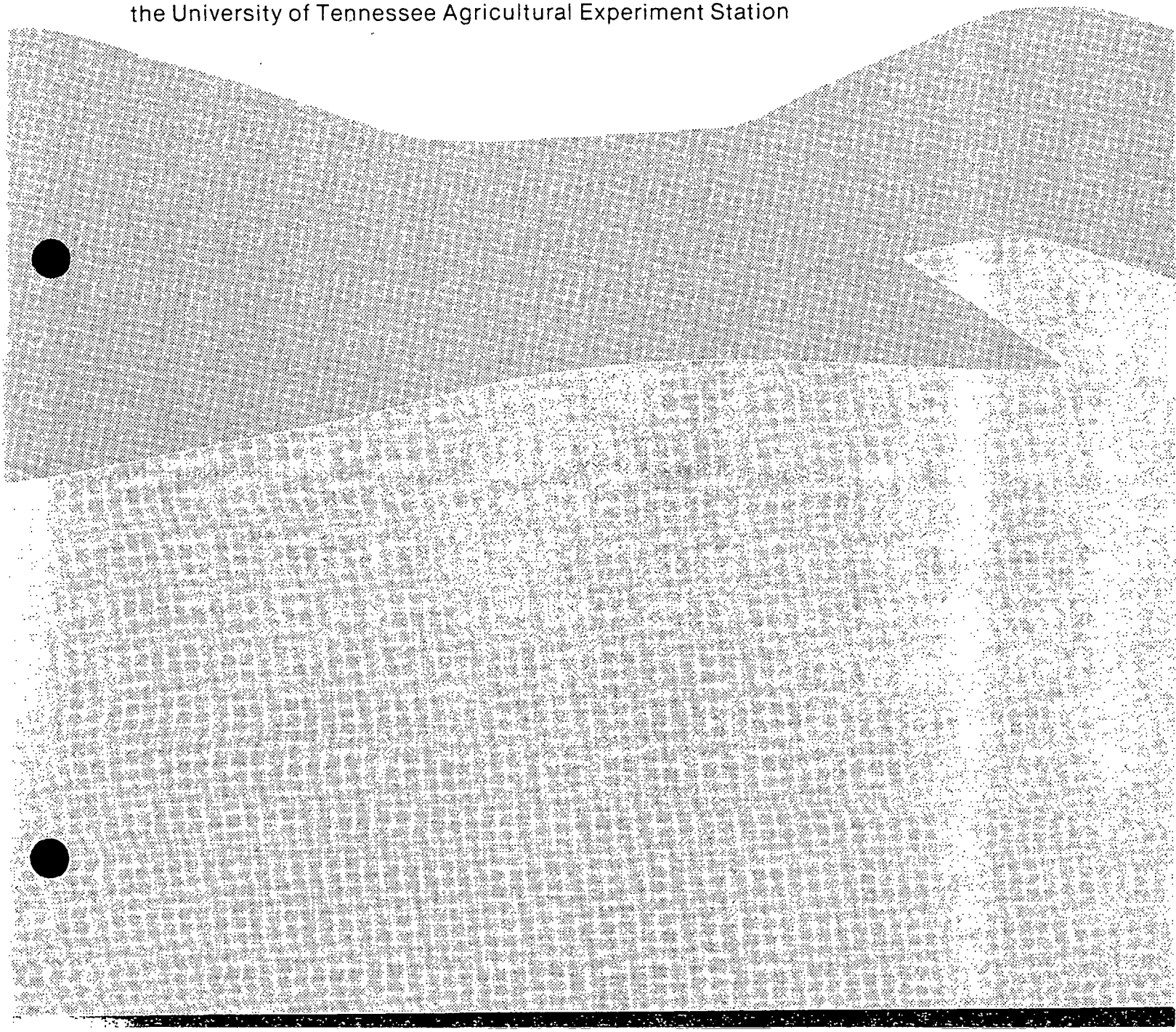
01 CONTACT	02 OF (Agency/Organization)			03 TELEPHONE NUMBER
Brenda K. Apple	TDEC/TN Division of Superfund			(615)741-5940
04 PREPARED BY	**05 AGENCY**	**06 ORGANIZATION**	**07 TELEPHONE NUMBER**	**08 DATE (Month/Day/Year)**
Brenda K. Apple	TDEC	TDSF	(615)741-5940	4-7-95

REFERENCE 3

Soil Survey of

Davidson County, Tennessee

United States Department of Agriculture
Soil Conservation Service
in cooperation with
the University of Tennessee Agricultural Experiment Station



The early settlers hunted, cleared new land, and grew corn. The need for improvement of crop production was apparent, and in 1819 a group of farmers in Davidson County formed a conservation group called the "Cumberland Agricultural Society" (*4*). Before the Civil War, cotton was a major crop, but by 1900 it was grown on only a limited acreage. Tobacco had become a major crop, especially on the Highland Rim.

industry and transportation

Industries in Davidson County include manufacturing, marketing, banking, printing and publishing, agribusiness, housing, and tourism. The more than 750 industries in the county employ more than 30 percent of the nonagricultural workers. Manufacturing and printing and publishing are the chief industries.

Nashville is one of the largest American centers for recording and distributing music. More than half of all single records sold in the United States are recorded in Nashville.

Farmland makes up 41 percent of the total land area of the county. The major farm enterprises are crop and livestock production. Hay, corn, soybeans, wheat, tobacco, livestock, and poultry are important products. Processing and distributing agricultural products are also important to the local economy.

Davidson County has an excellent network of 16 state, federal, and interstate highways. Interstate highways 24, 40, and 65, which meet in Nashville, are arteries of transportation to other large cities. The many state and county highways make every part of the county accessible for easy movement of farm products and freight. Sixty-six common carrier freight lines and 6 bus lines operate within county boundaries.

The Cumberland, Tennessee, Ohio, and Mississippi Rivers connect Nashville and Davidson County to the Gulf of Mexico. Barges use the Cumberland River to transport sand, gravel, asphalt, cement, petroleum, steel, and other products to and from the county.

Ten airlines and two railroads serve Nashville. About 185 scheduled commercial flights and 75 tons of freight move through the Nashville Metropolitan Airport daily. Railroads move more than 36 million tons of cargo through Nashville yearly.

climate

Prepared by the National Climatic Center, Asheville, North Carolina.

Table 1 gives data on temperature and precipitation for the survey area as recorded at Nashville in the period 1951 to 1975. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on length of the growing season.

In winter the average temperature is 40 degrees F, and the average daily minimum temperature is 30 degrees. The lowest temperature on record, which occurred at Nashville on January 24, 1963, is -15 degrees. In summer the average temperature is 78 degrees, and the average daily maximum temperature is 89 degrees. The highest recorded temperature, which occurred at Nashville on July 27, 1952, is 107 degrees.

Growing degree days are shown in table 1. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is 47.83 inches. Of this, 23 inches, or 48 percent, usually falls in April through September, which includes the growing season for most crops. In 2 years out of 10, the rainfall in April through September is less than 20 inches. The heaviest 1-day rainfall during the period of record was 5.09 inches at Nashville on September 13, 1962. Thunderstorms occur on about 55 days each year, and most occur in summer.

Average seasonal snowfall is 11 inches. The greatest snow depth at any one time during the period of record was 9 inches. On an average of 4 days, at least 1 inch of snow is on the ground. The number of such days varies greatly from year to year.

The average relative humidity in midafternoon in spring is less than 55 percent; during the rest of the year it is about 60 percent. Humidity is higher at night, and the average at dawn is about 85 percent. The sun shines 66 percent of the time possible in summer and 40 percent in winter. The prevailing wind is from the south. Average windspeed is highest, 10 miles per hour, in March.

how this survey was made

Soil scientists made this survey to learn what soils are in the survey area, where they are, and how they can be used. They observed the steepness, length, and shape of slopes; the size of streams and the general pattern of drainage; the kinds of native plants or crops; and the kinds of rock. They dug many holes to study soil profiles. A profile is the sequence of natural layers, or horizons, in a soil. It extends from the surface down into the parent material, which has been changed very little by leaching or by plant roots.

The soil scientists recorded the characteristics of the profiles they studied and compared those profiles with others in nearby counties and in more distant places. They classified and named the soils according to nationwide uniform procedures. They drew the boundaries of the soils on aerial photographs. These photographs show trees, buildings, fields, roads, and other details that help in drawing boundaries accurately. The soil maps at the back of this publication were prepared from aerial photographs.

The areas shown on a soil map are called map units. Most map units are made up of one kind of soil. Some

REFERENCE 4

1981 FEB 25 91 :
FILE
Davidson Co.

February 21, 1991

Mr. James H. Cornwell
Division of Solid Waste Management
Tennessee Department of Conservation
Customs House
701 Broadway
Nashville, TN 37247-3530

Dear Mr. Cornwell:

This letter is written in response to your letter dated February 12, 1991 (post marked February 19) and received by me on February 20.

Site/Operation Inspected:

You have listed Mid-State Plating Co., Inc. Mid-State ceased to exist on May 18, 1988 when Mid-State filed for bankruptcy.

I purchased a building (not Mid-State Plating). The plating operation was dismantled and solutions sold to Electroplating, Inc.

Purpose of Inspection:

I can't see where this applys to me as I had nothing to do with Mid-State Plating in any way and at no time. I only purchased the building.

Facility Description:

Your description of this facility is not correct. This company filed for bankruptcy on May 18, 1988 and ceased all operations at that time. I purchased the building at bankruptcy auction on September 14, 1988 after being ASSURED by the auctioneer, Jim Stevens, that this facility had been certified clean and have numerous people who will verify his announcements at the sale.

The plating solution was sold to Electroplating, Inc. The drums of hazardous waste were supposed to be removed from

REFERENCE 5

STATE OF TENNESSEE
DEPARTMENT OF PUBLIC HEALTH
DIVISION OF SOLID WASTE MANAGEMENT

326 CAPITOL HILL BUILDING
NASHVILLE, TENNESSEE 37219
TELEPHONE (615) 741-3424

HAZARDOUS WASTE GENERATOR NOTIFICATION

PART ONE

PLEASE TYPE OR PRINT LEGIBLY. SEE INSTRUCTIONS FOR FURTHER INFORMATION.

1. ORGANIZATION'S FULL NAME AT SITE			IDENTIFICATION CODE
Mid-State Plating Company, Inc.			TND004043033
2. MAILING ADDRESS	CITY	STATE	ZIP CODE
2424 14th Avenue North	Nashville	TN	37208

3. DOES YOUR FACILITY/OPERATION GENERATE ANY WASTE WHICH IS DETERMINED TO BE HAZARDOUS ACCORDING TO RULE 1200-1-11-.02(1)(E)?	YES	NO
	XX	

IF THE ANSWER TO QUESTION 3 IS 'NO', SKIP TO LINE 13 AND RETURN ONLY THIS PAGE TO THE DEPARTMENT.

4. DO YOU REQUEST A PARTIAL EXEMPTION BECAUSE YOU ARE A SMALL GENERATOR OF HAZARDOUS WASTE AS DEFINED IN RULE 1200-1-11-.02(1)(G)?	YES	NO
	XX	

5. SITE ADDRESS
2424 14th Avenue North

6. SITE COUNTY
Davidson

7. OWNER NAME	PHONE WITH AREA CODE
Neva Lee Butler	615-255-4517
8. MANAGER NAME	PHONE WITH AREA CODE
Allen Tansil	615-255-4517
9. PRINCIPAL TECHNICAL CONTACT	PHONE WITH AREA CODE
Gary Walker	615-255-4517

10. NUMBER OF EMPLOYEES	YEARS IN OPERATION	SIC CODES	JOB SHOP
30	21	3471	Electroplating

11. EMERGENCY CONTACTS FOR 24 HOURS/DAY AND 7 DAYS/WEEK.

NAME	TIME PERIOD COVERED	PHONE WITH AREA CODE
A.		
B.		
C.		
D.		

12. CURRENT ENVIRONMENTAL PERMITS (AIR, WATER, SOLID WASTE AND RADIOLOGICAL)
GIVE PERMIT TYPE, SOURCE (FEDERAL, STATE AND LOCAL), PERMIT NUMBER AND EXPIRATION DATE.

Metro-Nashville Industrial Waste Discharge Permit #790516

13. CERTIFICATION: I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS, AND THAT I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

SIGNATURE (MANAGER OR OWNER)	TITLE	DATE	SHEETS
Jack Butler	President	1-27-81	5

BELOW IS FOR DEPARTMENT USE ONLY.

14. DATE RECEIVED	DATE DUE	COUNTY CODE	PRIORITY	FOLLOW UP?
JAN 29 1981		19	L	N

15. COMMENTS
One waste oil hauler in Davidson County.

PH-2019, SWM 10/80

REFERENCE 6

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE FIELD OPERATIONS
NASHVILLE ENVIRONMENTAL FIELD OFFICE
3000 MORGAN ROAD
JOELTON 37080

INSPECTION REPORT

SITE/OPERATION INSPECTED:

Property (building and grounds) located at 2424 14th Avenue North
Davidson County, Nashville, TN 37208

This was the location of the former metal plating business known as Mid-State Plating.

TND 00-404-6033

OWNER/OPERATOR/PRIMARY CONTACT:

Mrs. Patricia Cunningham, Property Owner

DATE AND TIME OF INSPECTION:

July 19, 1994
11:00 a.m.

REPORT PREPARED BY:

James H. Cornwell
Division of Solid Waste Management
3000 Morgan Road
Department of Environment and Conservation
Joelton, Tennessee 37080
(615) 299-8451

NAMES AND AFFILIATIONS OF OTHER INSPECTION PARTICIPANTS:

Pete Bobo - DSWM

PURPOSE OF INSPECTION:

This routine treatment/storage/disposal inspection was conducted to evaluate the former Mid-State Plating's compliance with the applicable requirements of the Rules Governing Hazardous Waste Management in Tennessee.

EVALUATION BASIS:

Treatment/Storage/Disposal Facility

FACILITY DESCRIPTION:

The building located at 2424 14th Avenue North formally housed Mid-State Plating; an electroplating facility that operated nickel, chromium and zinc plating processes. In May of 1988, Mid-State Plating filed for bankruptcy. In September of 1988, the building and its contents were purchased at bankruptcy auction by Mrs. Patricia Cunningham. At the time the building was purchased, it contained various tanks and containers of plating solutions. Some of the containers and smaller tanks were moved to a paved area outside the building. These containers and tanks were uncovered and rain water falling into the containers and tanks caused some of the plating solutions to overflow onto the ground.

At some point in time, it appears that sludge from the bottom of the plating tanks has been dumped on the floor near the rear of the building at 2424 14th Avenue North.

On February 22, 1989 and on subsequent visits, the Division investigated the activities that occurred at the site and concluded the illegal disposal of listed hazardous waste had occurred of this location. The Division then issued a Notice of Violation to the current building owner and the former owner of Mid-State Plating, and referred the case to the Division's enforcement section.

According to a letter from Patricia Cunningham dated February 21, 1991, the building's interior walls and floors have been power washed; the building has been painted inside and out; and a new cement floor has been placed in the lower part of the building.

This inspection involved visually observing the inside and outside of the building at 2424 14th Avenue North, the property on both sides of the building, the paved area in front of the building and the wooded area immediately down gradient of the paved area. This inspection was conducted as partial fulfillment of the commitment the Division of Solid Waste Management has with EPA-Region IV. The building is presently being leased to Crown Tent and Awning Co.

Groundwater

Currently, there are no wells installed at this closed facility and no other type of groundwater monitoring or activity of any sort. The facility is closed and no contact has been made by the company to the DSWM groundwater unit to initiate or determine compliance.

INSPECTION FINDINGS:

No violations were noted during the inspection.

RECOMMENDATIONS AND REMARKS:

None

Signed James H Cornwell

Date 9-23-94

Signed [illegible]

Date 9-23-94

JHC/cunn188/tdd/SW-188

REFERENCE 7

ESSELTE

EarthWise

COMPOSITIONS

Mid-State Plating, Inc.

TDSF 19-572 / EPA ID# TND004046033

Preliminary Assessment Sept. 1995

EarthWise®

Paper made from 50% recycled fibers
10% post -consumer waste

Item No.
09-4122

SEWN
PAGES

REFERENCE 8

HAZARDOUS WASTE NOTIFICATION SUMMARY REPORT 4/17/86

TDSF Central Office

HIS REPORT SHOULD BE CORRECTED BY SUBMITTING A HAZARDOUS
IFICATION FORM (PH-2019) OR A WASTE STREAM DESCRIPTION FORM (PH-2022).
ONAL WASTES ARE BEING GENERATED, SUBMIT ADDITIONAL WASTE
AGES USING A WASTE STREAM NUMBER STARTING AT ONE MORE
WASTE STREAM NUMBER USED.

NAME: MID-STATE PLATING COMPANY, INC.
D CODE: TND 00-404-6033
NG ADDRESS
14TH AVENUE NORTH NASHVILLE TN 37208
ATOR: YES TRANSPORTER: TSDF: NO
LOCATION
14TH AVENUE NORTH 2424 14TH AVENUE NORTH
Y NAME: DAVIDSON SWM FIELD OFFICE LOCATION: NASHVILLE
: NOVA LEE BUTLER (615) 255-4517
ER: ALLEN TANSIL (615) 255-4517
CT: GARY WALKER (615) 255-4517
YEES: 30 YEAR BEGAN: 1951
DES: 3471, , , JOB SHOP:
ENCY CONTACTS:
STREAMS THAT HAVE BEEN DESCRIBED TO THE DEPARTMENT.

WASTE NAME / GENERATION PROCESS	WASTE CODE	STATUS	
ELECTROPLATING TREAT	-F006	HAZARDOUS	GRANULAR SOLID (pH:
ELECTROPLATING PROCESS *------SEE THOMPSON-HAYWARD CHEMICALCOMPANY ELECTROPLATING PROCESS			
ELECTROPLATING PROCESS			

REFERENCE 9

19-81 RDR

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
CUSTOMS HOUSE
701 BROADWAY
NASHVILLE, TENNESSEE 37219-5403

CERTIFIED MAIL P 485 405 478
RETURN RECEIPT REQUESTED

April 10, 1989

Mrs. Patricia Cunningham
508 Ridge Court East
Old Hickory, Tennessee 37138

SUBJECT: Response to March 7, 1989
Notice of Violation

Dear Mrs. Cunningham:

We appreciate your written response to the March 7, 1989 Notice of Violation and the concerns regarding liability as expressed in your letter and verbally by Mr. Ross Cunningham. We must however disagree with your assessment that you are not in violation of the Tennessee Hazardous Waste Management Act and Tennessee's Hazardous Waste Management Regulations. Our determination of the existence of violations of the Act and Regulations is based upon our understanding of the activities that have taken place at 2424 14th Avenue North since June of 1988.

We understand the activities that took place are as follows;

1. Activities regarding illegal storage:

Some time prior to June 22, 1988, the Mid-State Plating Company began bankruptcy proceedings. On June 22, 1988 I conducted an inspection at Mid-State to determine if any hazardous waste violations existed. I concluded that no violations existed due to the understanding that the plating solution which was on site could be reused as an effective substitute for commercial products in another plating process and that an attempt would be made to find a suitable plater that would use the solution.

Since the solution was not reused, it was a listed hazardous waste (F007 ... spent cyanide plating bath solutions from electroplating operations) but was not subject to regulation until it exited the unit in which it was generated or remained in the unit more than 90 days after the unit ceased to be operated for manufacturing. The Hazardous Waste Regulations provide for the storage of hazardous waste for greater than 90 days only if the storage facility has been issued a permit or interim status according to the Regulations. In February of 1989, I visited the property at 2424 14th Avenue North and found at least some of the plating solution still on site. Since manufacturing had stopped by June of 1988, by February of 1989, this plating solution was being stored illegally. At that time, Mrs. Cunningham, you were the owner of an illegal hazardous waste storage facility since neither a permit nor interim statue for hazardous waste storage has been issued for this site.

2. Activities Regarding Illegal Disposal

At some point in time, it appears that sludge from the bottom of the plating tanks has been dumped on the floor near the rear of the building on 2424 14th Avenue North. This sludge is a listed hazardous waste (F008 ... Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process) and the dumping constitutes disposal. Also, at some point after you became the owner of the property, plating solution that had been drummed up was moved from inside the building to the paved area outside. At least some of these drums were uncovered and rain, apparently, caused an unknown amount of this solution to be washed out onto the pavement and surrounding grounds. This action has also resulted in the disposal of hazardous waste. Disposal of a hazardous waste subject to full regulation may legally occur only at a facility that has a permit or interim status issued according to the Regulations. By February of 1989, you were the owner of an illegal hazardous waste disposal facility since neither a permit nor interim status for disposal of hazardous waste has been issued for this site.

As the owner of this facility, the Division of Solid Waste Management holds you responsible for remediating any problems that exist regarding hazardous waste. Therefore, the mandates listed in our March 7, 1989 letter are considered to be still valid by this Division.

If the information required by the March 7, 1989, Notice of Violation is not received in this office by May 1, 1989, we reserve the option of proceeding with legal enforcement actions against you.

If you have any question or comments regarding this matter, feel free to contact Al Majors or Doye Rowland of this office at (615) 741-0654.

Sincerely,

Alfred T. Majors

Alfred T. Majors
Division of Solid Waste Management

xc: Angus Gillis, III
Joe Holland, WBA
Robert Carnahan, Metro Water & Sewer
Davidson County Health Department
U.S.E.P.A., Region IV

Attachment

REFERENCE 10

U. S. EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 1045952 Site ID: TND004046033

Site Name: NL-State Plating Company, Inc.

Nature of Material:

Map:	✓	Computer Disks:	
Photos:		CD-ROM:	
Blueprints:		Oversized Report:	
Slides:		Log Book:	

Other (describe): Geologic Map of The Nashville West Quadrangle, Tennessee

Amount of material:

Please contact the appropriate Records Center to view the material.

REFERENCE 11

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION - DIVISION OF WATER SUPPLY
RECORDS OF WATER WELLS IN SELECTED AREAS OF TENNESSEE

EXPLANATION OF COLUMN HEADINGS

QUAD/NTH = Designation by number, Quadrant and ninth of the 2.5 - minute quadrangle area in which the well is located. The leading numbers identify the 15-minute quadrangle, the next two letters identify the 7.5-minute quadrant and the last digit identifies the one-ninth subdivision of the latter.

COUNTY = County in which the well is located.

WELL NUM = Identification number assigned to the well by the State.

TAG NUM = An inspection number assigned to the well at the time of inspection by the State.

OWNER'S NAME = Name of person or organization for whom the well was drilled.

LOCATION ROAD = Name of street or road from which to access the well. Blank if unknown.

COMP DATE = Month, day and year the well was completed.

INSPT DATE = Month, day and year the well was inspected by TDHE. Blank if well has not been inspected.

TOT DEPTH = Total depth of the well in feet.

AQ DEPTH = Depth, in feet, below land surface to the top of the shallowest aquifer or water-bearing zone tapped by the well.

TOT YIELD = Total yield of the well in gallons per minute (gpm). Yields less than one-half gpm reported as zero.

STAT LEVEL = Static water-level: depth, in feet, from the land surface to the surface of the water standing in an idle well.

CSE DEPTH = Casing depth: depth, in feet, to the bottom of the water tight casing installed in the well.

CSE TYPE = Casing type: PLAST = Plastic; STEEL = Steel; OTHER = any other material such as concrete, fiberglass or tile.

WELL FINISH = Construction of the well in the interval supplying water to the well: OPEN = Uncased or open hole; SLOT = Hand perforated or slotted pipe; SCREEN = Manufactured device designed to maintain the wall of the borehole and allow ground water to enter the well.

INTERVAL = The depth, in feet, from the top to the bottom of the interval that is open to the well.

WAT QUAL = Water Quality: a word to describe the relative quality of the well water such as GOOD, FAIR, BAD, LIME, IRON, SULFUR, SALT, OIL, GAS, OTHER.

GEO FORM = Name of the geologic formation tapped by the well (not generally reported).

LATITUDE = Latitude of well site in degrees, minutes, and seconds.

LONGITUDE = Longitude of well site in degrees, minutes, and seconds.

A/C = Accuracy Code for latitude and longitude: S = Nearest second; F = nearest 15 seconds; T = nearest 30 seconds; M = nearest minute; Blank = nearest 2.5 minutes.

LOG = Refers to availability of drillers log: Y = yes; N = no.

DRILLER = License number of driller who supervised construction of the well. Names provided upon request.

USE = Purpose for which the well was constructed: HOME = residential; COMM = commercial; etc.

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION - DIVISION OF WATER SUPPLY
RECORDS OF WATER WELLS ON THE QUADRANGLE (0308NE) TN.

QUAD / NTH COUNTY	WELL NUM REG NUM	OWNER'S NAME LOCATION ROAD ADDRESS	COMP DATE INSPT DATE CITY	TOT DEPTH AQ DEPTH STATE-ZIP	TOT YIELD STAT LEVEL	CSE DEPTH CSE TYPE	WELL FINISH INTERVAL	WAT QUAL TAG NUM	LATITUDE LONGITUDE	A/C LOG	DRILLER USE
0308NE	03709103	HUGH H.WINGETT	03/09/1954	1120	--	--		BAD	- -		00000
DAVIDSON			/ /	1090	--		-- - --		- -		
0308NE 1	03700580	FARMER G	10/28/1969	75	20	21		GOOD	36-13-02	S	00019
DAVIDSON			/ /	65	15	STEEL	-- - --		86-51-54		HOME
0308NE 1	03700927	ABERTHNAY O H	09/17/1975	60	--	--			36-12-11	S	00019
DAVIDSON			/ /	--	--		-- - --		86-50-38		HOME
0308NE 2	03701375	LIGON_____ROGE	03/03/1984	410	1	21	OPEN	OTHR	- -		00015
DAVIDSON		OFF BRICK CH	/ /	255	--	STEEL	21 - 410		- -	Y	HEAT
0308NE 2	03701388	LIGON_____ROGE	03/26/1984	475	1	21	OPEN	GOOD	- -		00001
DAVIDSON		BRICK CHURCH LN	/ /	200	--	STEEL	21 - 475		- -	Y	HOME
		620 S GALLATIN	NASHVILLE TN								
0308NE 2	03709060	F.E.BAUJAN	09/09/1953	1149	--	29			36-12-53	S	
DAVIDSON		YOUNGS LANE	/ /	1135	--		-- - --		86-47-56		HOME
0308NE 3	03701418	HUNTER_____RAY_	05/18/1985	95	10	43	OPEN	GOOD	- -		00561
DAVIDSON		309 RUSSEL ST	/ /	50	20	STEEL	44 - 95		- -	Y	HOME
		309 RUSSELL ST	NASHVILLE TN								
0308NE 3	03701467	RAY_____ DR_O	08/15/1986	300	0	20	OPEN	OTHR	- -		00015
DAVIDSON		HAMPTON AVE	/ /	295	--	STEEL	20 - 300		- -	Y	HOME
		2100 HAMPTON DR	NASHVILLE TN								
0308NE 3	03709062	BRICK CHURCH SCHOOL	02/06/1950	1241	1	90		BAD	36-14-15	S	00000
DAVIDSON		EWING LANE	/ /	1215	--		-- - --		86-46-52		COMM
0308NE 4	03701363	METAL PLATE	09/23/1983	350	0	21	OPEN	OTHR	36-10-11	S	00015
DAVIDSON		COCKRILL BEND	04/03/1985	--	--	STEEL	21 - 350		86-52-29	Y	IND
		7121 COCKRILL B	NASHVILLE TN								
0308NE 4	03701364	METAL_PLATE____	09/23/1983	350	0	21	OPEN	OTHR	36-10-08	S	00015
DAVIDSON		COCKRILL BEND	04/03/1985	--	--	STEEL	21 - 350		86-52-27	Y	IND
		7121 COCKRILL B	NASHVILLE TN								
0308NE 4	03701472	ADAMS_____JAME	04/24/1984	248	4	65	OPEN	OTHR	- -		00015
DAVIDSON		3255 PANORAMA D	/ /	90	--	STEEL	65 - 248		- -	Y	HOME
		3255 PANORAMA D	NASHVILLE TN								

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION - DIVISION OF WATER SUPPLY
RECORDS OF WATER WELLS ON THE NASHVILLE-WEST QUADRANGLE (0308NE) TN.

QUAD / NTH COUNTY	WELL NUM REG NUM	OWNER'S NAME LOCATION ROAD ADDRESS	COMP DATE INSPT DATE CITY	TOT DEPTH AQ DEPTH STATE-ZIP	TOT YIELD STAT LEVEL	CSE DEPTH CSE TYPE	WELL FINISH INTERVAL	WAT QUAL TAG NUM	LATITUDE LONGITUDE	A/C LOG	DRILLER USE
0308NE 4	94002571	GULF LUMBER	06/28/1994	270	2	20	OPEN	OTHR	36-10-12	F	00647
DAVIDSON	D0005612	CENTENNIAL BLVD	1/14/1995	33	0	STEEL	20 - 270	011339	86-51-48	Y	COMM
		CENTENNIAL BLVD	NASHVILLE TN								
0308NE 5	03701263	R.ROGERS CO.,INC.	04/17/1982	195	50	52		BAD	36-12-04	S	00161
DAVIDSON		METRO CENTER	/ /	160	40	STEEL	-- - --		86-48-07		COMM
0308NE 5	03701391	TED RHODES GOLF	08/14/1984	70	350	43	OPEN	GOOD	36-11-25	S	00010
DAVIDSON		HWY 12	02/14/1985	61	18	STEEL	43 - 70		86-49-30	Y	IRR
0308NE 5	03701421	METRO_CONCRETE_	03/04/1985	227	0	--		OTHR	- -		00015
DAVIDSON		3RD AVE N	/ /	--	--	OTHER	-- - --		- -	Y	OTHR
		1136 2ND AVE N	NASHVILLE TN								
0308NE 5	03701422	METRO_CONCRETE_	03/05/1985	105	80	41	OPEN	OTHR	- -		00015
DAVIDSON		3RD AVE N	/ /	56	45	STEEL	42 - 105		- -	Y	HEAT
		1136 2ND AVE N	NASHVILLE TN								
0308NE 5	94002816	WILLIAMS_____ROY_	07/22/1994	400	--	--		OTHR	36-25-21	F	00010
STEWART		CAMP LYLEWOOD R	3/28/1995	--	--	OTHER	-- - --	010610	87-36-13	Y	HOME
		101 CAMP LYLEWO	INDIAN MOU TN	37079							
0308NE 6	03701236		/ /19	--	--	--			36-11-34	S	
DAVIDSON			/ /	--	--		-- - --		86-47-15		COMM
0308NE 6	03701237	NASHVILLE HOUSE	09/04/1981	300	50	44		GOOD	36-11-33	S	00551
DAVIDSON		METRO CENTER	/ /	165	30	STEEL	-- - --		86-47-13		COMM
0308NE 6	03701397	HUNTER_____RAY	10/03/1984	210	12	26	OPEN	GOOD	36-10-26	S	00561
DAVIDSON		RUSSELL ST	05/13/1985	200	45	STEEL	26 - 210		86-45-26	Y	HOME
		809 RUSSELL ST	NASHVILLE TN								
0308NE 6	03701588	CARTER_JR_____HOYT	06/09/1989	223	2	20		OTHR	- -		00551
DAVIDSON		WHITES CREEK PK	/ /	165	50	STEEL	20 - 223		- -	Y	COMM
		44 MUSIC SQ E	NASHVILLE TN	37203							
0308NE 6	03709044	NASHVILLE HOUSE	05/20/1981	--	25	--		GOOD	36-11-33	S	
DAVIDSON			/ /	--	--		-- - --		86-47-13		OTHR
0308NE 6	03709045	NASHVILLE HOUSE	/ /19	200	50	--		GOOD	36-11-34	S	00055
DAVIDSON			/ /	--	--	STEEL	-- - --		86-47-15		IND

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION - DIVISION OF WATER SUPPLY
RECORDS OF WATER WELLS ON THE NASHVILLE-WEST QUADRANGLE (0308NE) TN.

QUAD / NTH COUNTY	WELL NUM REG NUM	OWNER'S NAME LOCATION ROAD ADDRESS	COMP DATE INSPT DATE CITY	TOT DEPTH AQ DEPTH STATE-ZIP	TOT YIELD STAT LEVEL	CSE DEPTH CSE TYPE	WELL FINISH INTERVAL	WAT QUAL TAG NUM	LATITUDE LONGITUDE	A/C LOG	DRILLER USE
0308NE 6	93003794	LINK READY MIX	07/23/1993	160	100	59	OPEN	OTHR	- -		00227
DAVIDSON		COWAN RD	/ /	70	--	OTHER	59 - 160		- -	Y	HOME
		912 KELLYJUNE D	MT JULIET TN	37122							
0308NE 6	94000545	SEQUATCHIE CONCRETE	04/16/1993	200	50	45	OPEN	OTHR	36-10-37	F	00227
DAVIDSON		COWAN 306	12/14/1994	70	--	OTHER	45 - 200	011332	86-46-41	Y	COMM
		306 COWAN ST	NASHVILLE TN	37207							
0308NE 6	94002682	NASHVILLE RECYCLE	07/27/1994	150	10	62	OPEN	UNK	36-11-03	F	00191
DAVIDSON	D0001812	10 VAN BAREN ST	12/14/1994	80	--	STEEL	62 - 150	011336	86-47-03	Y	COMM
		10 VAN BUREN ST	NASHVILLE TN	37201							
0308NE 6	94003095	HOLTKAMP GREENHOUSE	08/24/1994	250	30	23	OPEN	OTHR	36-11-56	S	00227
DAVIDSON	D0007190	LISCHEY AVE 150	6/24/1994	95	15	OTHER	23 - 250	005666	86-45-38	Y	IRR
		1501 LISCHEY AV	NASHVILLE TN	37207							
0308NE 7	03709521	VICTOR CHEMICAL CO.	00/19/1935	502	--	--			36-09-54	S	
DAVIDSON			/ /	--	--		-- - --		86-50-34		IND
0308NE 7	91000653	ST THOMAS HOSPITAL	12/27/1990	200	30	41	OPEN	OTHR	36-07-42	S	00227
DAVIDSON		HARDING 4220	2/24/1994	50	38	OTHER	41 - 200	005625	86-50-39	Y	IRR
		4220 HARDING	NASHVILLE TN								
0308NE 7	91001735	KENDALL_____WM_D	04/16/1991	200	0	--		OTHR	- -		00227
DAVIDSON			/ /	--	--	OTHER	-- - --		- -	Y	IRR
		6033 JOCELYN HO	NASHVILLE TN	37205							
0308NE 7	91003001	HILLWOOD COUNTRY CL	03/08/1991	200	100	27	OPEN	OTHR	- -		00227
DAVIDSON		HICKORY VALLEY	/ /	65	--	STEEL	27 - 200		- -	Y	IRR
		6201 HICKORY VA	NASHVILLE TN	37205							
0308NE 7	91003002	HILLWOOD COUNTRY CL	03/21/1991	200	100	27	OPEN	OTHR	- -		00227
DAVIDSON		HICKORY VALLEY	/ /	50	--	STEEL	27 - 200		- -	Y	IRR
		6201 HICKORY VA	NASHVILLE TN	37205							
0308NE 7	94000514	ST THOMAS HOSPITAL	02/24/1994	200	--	--		OTHR	36-07-46	S	00227
DAVIDSON		4220 HARDING RD	2/24/1994	--	--	OTHER	-- - --	010375	86-50-44	Y	HEAT
		125 PARK SOUTH	NASHVILLE TN	37210							
0308NE 8	03701496	VANDERBILT_UNIV	07/28/1987	327	4	--		OTHR	- -		00001
DAVIDSON		CAPERS ST	/ /	190	--	OTHER	-- - --		- -	Y	IRR
		BOX 1810 STATIO	NASHVILLE TN	37235							
0308NE 8	03701497	VANDERBILT_UNIV	07/25/1987	307	1	--		OTHR	- -		00001
DAVIDSON		JESS NEELEY DR	/ /	--	20	OTHER	-- - --		- -	Y	IRR
		BOX 1810 STATIO	NASHVILLE TN	37235							

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION - DIVISION OF WATER SUPPLY
RECORDS OF WATER WELLS ON THE NASHVILLE-WEST QUADRANGLE (0308NE) TN.

QUAD / NTH COUNTY	WELL NUM REG NUM	OWNER'S NAME LOCATION ROAD ADDRESS	COMP DATE INSPT DATE CITY	TOT DEPTH AQ DEPTH STATE-ZIP	TOT YIELD STAT LEVEL	CSE DEPTH CSE TYPE	WELL FINISH INTERVAL	WAT QUAL TAG NUM	LATITUDE LONGITUDE	A/C LOG	DRILLER USE
0308NE 8 DAVIDSON	03701593	CRC_EQUITIES_IN WEST END AVE 401 ELMINGTON A	04/12/1989 / / NASHVILLE	220 -- TN 37205	0 --	-- OTHER	 -- - --	OTHR	- - - -	 Y	00227 FARM
0308NE 8 DAVIDSON	03701597	CRC_EQUITIES_IN WEST END AVE 401 ELMINGTON A	04/11/1989 / / NASHVILLE	200 -- TN 37205	0 --	-- OTHER	 -- - --	OTHR	- - - -	 Y	00227 IRR
0308NE 8 DAVIDSON	03709078	NASHVILLE WIRE RACK	09/04/1958 / / 	1043 -- 	-- 9	15 	 -- - --	GOOD	36-09-27 86-48-33	S 	00000 IND
0308NE 8 DAVIDSON	03709082	RICHLAND CLUB WEST END AVE 	08/07/1970 / / 	1199 1195 	3 0 	-- 	 -- - --	GOOD	36-07-43 86-49-26	F 	00227 OTHR
0308NE 8 DAVIDSON	03709092	V.A.HOSPITAL	12/00/1962 / / 	1003 -- 	-- 30	-- 	 -- - --		36-08-34 86-48-16	S 	00055 IND
0308NE 8 DAVIDSON	90002855	HARMER_____PETE KNOLLWOOD RD 3660 KNOLLWOOD	08/21/1990 / / NASHVILLE	260 -- TN 37215	0 --	29 OTHER	OPEN 29 - 260	OTHR	- - - -	 Y	00010 HOME
0308NE 8 DAVIDSON	90003085	CUNNINGHAM_____JOHN VOSSLAND 116 VOSSLAND DR	02/28/1986 / / NASHVILLE	84 60 TN 37205	20 --	20 OTHER	OPEN -- - --	OTHR	- - - -	 Y	00001 HOME
0308NE 8 DAVIDSON	90003086	STELTEMEIER____BILL VOSSLAND & HARD 128 HARDING WOO	02/27/1986 / / NASHVILLE	310 95 TN 37205	4 --	20 OTHER	OPEN -- - --	OTHR	- - - -	 Y	00001 HOME
0308NE 8 DAVIDSON	92003625	PAWN SHOP 3324 CHARLOTTE CORNER 35TH CHA	07/17/1992 / / NASHVILLE	21 -- 	-- --	8 STEEL	OPEN 8 - 21	OTHR	- - - -	 Y	00607 MON
0308NE 8 DAVIDSON	92003626	PAWN SHOP 3324 CHARLOTTE CORNER 35TH CHA	07/16/1992 / / NASHVILLE	28 -- 	-- --	8 STEEL	OPEN 8 - 28	OTHR	- - - -	 Y	00607 MON
0308NE 8 DAVIDSON	92003627	PAWN SHOP 3324 CHARLOTTE CORNER 35TH CHA	07/17/1992 / / NASHVILLE	15 -- 	-- --	4 STEEL	OPEN 4 - 15	OTHR	- - - -	 Y	00607 MON
0308NE 8 DAVIDSON	92003628	PAWN SHOP 3324 CHARLOTTE CORNER 35TH CHA	07/17/1992 / / NASHVILLE	15 -- 	-- --	6 STEEL	OPEN 6 - 15	OTHR	- - - -	 Y	00607 MON

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION - DIVISION OF WATER SUPPLY
RECORDS OF WATER WELLS ON THE NASHVILLE-WEST QUADRANGLE (0308NE) TN.

QUAD / NTH COUNTY	WELL NUM REG NUM	OWNER'S NAME LOCATION ROAD ADDRESS	COMP DATE INSPT DATE CITY	TOT DEPTH AQ DEPTH STATE-ZIP	TOT YIELD STAT LEVEL	CSE DEPTH CSE TYPE	WELL FINISH INTERVAL	WAT QUAL TAG NUM	LATITUDE LONGITUDE	A/C LOG	DRILLER USE
0308NE 8	94002850	CROOK_____STEV	06/15/1994	180	--	--		OTHR	36-07-25	F	00227
DAVIDSON		BOWLING AVE	2/24/1995	--	--	OTHER	-- - --	011268	86-49-34	Y	OTHR
		211 BOWLING AVE	NASHVILLE	TN 37205							
0308NE 9	03701202	M. COHEN IRON & MET	09/29/1980	480	10	61		BAD	36-09-40	S	00227
DAVIDSON			/ /	--	25	STEEL	-- - --		86-46-04		IND
0308NE 9	03701319	NASHVILLE WIRE	11/17/1982	300	35	52		BAD	- -		00015
DAVIDSON		DRIFTWOOD	/ /	138	--	STEEL	-- - --		- -		COMM
0308NE 9	03701521	BRANDON_____DENN	07/14/1987	360	1	20	OPEN		- -		00227
DAVIDSON		TREE MONT	/ /	145	--	OTHER	20 - 360		- -	Y	OTHR
		5123 PADDOCK VI	BRENTWOOD	TN 37027							
0308NE 9	03701569	AMERICAN_EAGLE_	10/14/1988	140	40	20	OPEN	GOOD	- -		00227
DAVIDSON		FIRST ST	/ /	110	--	OTHER	20 - 140		- -	Y	COMM
		310 1ST ST	NASHVILLE	TN 37213							
0308NE 9	03701570	NASHVILLE_COLD_	10/25/1988	1045	12	20	OPEN	BAD	36-08-26	F	00227
DAVIDSON		HACKWORTH 1905	10/25/1988	950	120	OTHER	20 - 1045		86-45-06	Y	COMM
		1905 HACKWORTH	NASHVILLE	TN 37210							
0308NE 9	92001479	FATHER RYAN HIGH SC	04/10/1992	280	0	--		OTHR	- -		00227
DAVIDSON		NORWOOD DR	/ /	--	--	OTHER	-- - --		- -	Y	IRR
		700 NORWOOD DR	NASHVILLE	TN 37204							
0308NE 9	92003615	JUVENILE JUSTICE CN	06/23/1992	26	--	16	SCREEN	OTHR	- -		00607
DAVIDSON		2ND ST	/ /	--	--	PLAST	16 - 26		- -	Y	MON
		2ND ST	NASHVILLE	TN							
0308NE 9	92003616	JUVENILE JUSTICE CN	06/24/1992	24	--	14	SCREEN	OTHR	- -		00607
DAVIDSON		2ND ST	/ /	--	--	PLAST	14 - 24		- -	Y	MON
		2ND ST	NASHVILLE	TN							
0308NE 9	92003617	JUVENILE JUSTICE CN	06/24/1992	17	--	7	SCREEN	OTHR	- -		00607
DAVIDSON		2ND ST	/ /	--	--	PLAST	7 - 17		- -	Y	MON
		2ND ST	NASHVILLE	TN							
0308NE 9	92003618	JUVENILE JUSTICE CN	06/25/1992	23	--	13	SCREEN	OTHR	- -		00607
DAVIDSON		2ND ST	/ /	--	--	PLAST	13 - 23		- -	Y	MON
		2ND ST	NASHVILLE	TN							
0308NE 9	92003619	CAROLINA STEEL	07/18/1992	40	--	16	SCREEN	OTHR	- -		00607
DAVIDSON		DRIFTWOOD ST	/ /	--	--	PLAST	16 - 39		- -	Y	MON
		DRIFTWOOD ST	NASHVILLE	TN							

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION - DIVISION OF WATER SUPPLY
RECORDS OF WATER WELLS ON THE NASHVILLE-WEST QUADRANGLE (0308NE) TN.

QUAD / NTH COUNTY	WELL NUM REG NUM	OWNER'S NAME LOCATION ROAD ADDRESS	COMP DATE INSPT DATE CITY	TOT AQ STATE-ZIP	DEPTH	TOT YIELD STAT LEVEL	CSE DEPTH CSE TYPE	WELL FINISH INTERVAL	WAT QUAL TAG NUM	LATITUDE LONGITUDE	A/C LOG	DRILLER USE
0308NE 9	92003620	CAROLINA STEEL	07/18/1992		42	--	15	SCREEN	OTHR	- -		00607
DAVIDSON		DRIFTWOOD ST	/ /		--	--	PLAST	15 - 40		- -	Y	MON
		DRIFTWOOD ST	NASHVILLE	TN								
0308NE 9	92003621	BUCHANNAN CONST	06/30/1992		25	--	10	OPEN	OTHR	- -		00607
DAVIDSON		8TH AVE SOUTH	/ /		--	--	STEEL	10 - 25		- -	Y	MON
		8TH AVE S	NASHVILLE	TN								
0308NE 9	92003622	BUCHANNAN CONST	07/01/1992		16	--	11	OPEN	OTHR	- -		00607
DAVIDSON		8TH AVE SOUTH	/ /		--	--	STEEL	11 - 16		- -	Y	MON
		8TH AVE S	NASHVILLE	TN								
0308NE 9	92003623	BUCHANNAN CONST	07/01/1992		39	--	10	OPEN	OTHR	- -		00607
DAVIDSON		8TH AVE SOUTH	/ /		--	--	STEEL	10 - 39		- -	Y	MON
		8TH AVE S	NASHVILLE	TN								
0308NE 9	92003624	BUCHANNAN CONST	07/01/1992		7	--	2	SCREEN	OTHR	- -		00607
DAVIDSON		8TH AVE SOUTH	/ /		--	--	PLAST	2 - 7		- -	Y	MON
		8TH AVE S	NASHVILLE	TN								
0308NE 9	92003629	CONE_____EILL	06/18/1992		31	--	16	OPEN	OTHR	- -		00607
DAVIDSON		LAFAYETTE	/ /		--	--	STEEL	16 - 31		- -	Y	MON
		LAFAYETTE	NASHVILLE	TN								
0308NE 9	92003630	CONE_____EILL	06/19/1992		32	--	14	OPEN	OTHR	- -		00607
DAVIDSON		LAFAYETTE ST	/ /		--	--	STEEL	14 - 32		- -	Y	MON
		LAFAYETTE ST	NASHVILLE	TN								
0308NE 9	92003631	CONE_____EILE	06/18/1992		32	--	14	OPEN	OTHR	- -		00607
DAVIDSON		LAFAYETTE ST	/ /		--	--	STEEL	14 - 32		- -	Y	MON
		LAFAYETTE ST	NASHVILLE	TN								
0308NE 9	92003632	CONE_____EILE	06/19/1992		20	--	11	OPEN	OTHR	- -		00607
DAVIDSON		LAFAYETTE ST	/ /		--	--	STEEL	11 - 20		- -	Y	MON
		LAFAYETTE ST	NASHVILLE	TN								
0308NE 9	93001227	PDR ENGINEERS	02/25/1993		400	25	27	OPEN	GOOD	36-07-58	F	00550
DAVIDSON		LINDELL AVE	2/24/1995		160	134	OTHER	27 - 400	011432	86-46-08	Y	COMM
		2000 LINDELL AV	NASHVILLE	TN	37203							

REFERENCE 12

				Population	Service Connections	Average Production	* SYSTEM TYPE
SON COUNTY							
001495	ANDERSON CO. PARK, PICNIC ELMER WILSHIRE PO BOX 41 ANDERSONVILLE, TN 37705		(615) 494-9352	200	7	0	N
			Lat.	Long.			
	WELLS	** G	036 17 20	084 02 00			
00768	ANDERSON COUNTY UTILITY BOARD Mr. Eddie W. Troxell 101 S MAIN, SUITE 327 Clinton, TN 37716		(615) 457-3033	6,052	2,450	849000	C
			Lat.	Long.			
	CLINCH RIVER	** S	036 03 46	084 11 50			
	CLINTON	** P	036 07 20	084 06 45			
	NORRIS WAT COMM	** Z	036 12 59	084 02 58			
04331	CLARK CENTER BATH HOUSE CLARK CENTER, BATH HOUSE PO BOX 2009 MS 8227 OAK RIDGE, TN 378318227		(615) 574-1598	500	8	0	N
			Lat.	Long.			
	CLINCH RIVER	** S	035 57 30	084 14 45			
04329	CLARK CENTER OFFICE SYSTEM CLARK CENTER, OFFICE SYSTEM PO BOX 2009 MS 8227 OAKRIDGE, TN 378318227		(615) 574-1598	500	8	0	N
			Lat.	Long.			
	CLINCH RIVER	** S	035 57 35	084 14 45			
0	CLINTON UTILITY BOARD DENNIS BARBE 1001 SEIVERS BLVD Clinton, TN 37716		(615) 457-3814	13,283	5,378	1605000	C
			Lat.	Long.			
	CLINCH RIVER	** S	036 07 20	084 06 45			
000772	DEPT OF ENERGY MR DANIEL KEARNEY DOE PO BOX 2001 OAK RIDGE, TN 37831		(615) 576-1954	99	4	12735000	C
			Lat.	Long.			
	CLINCH RIVER	** S	035 58 31	084 12 44			
00363	LAKE CITY WATER DEPT Mr. James Wills, Supt. PO BOX 66 Lake City, TN 37769		(615) 546-5646	2,107	853	236000	C
			Lat.	Long.			
	NO ANDER CO UD	** P					
03001	MOUNT PLEASANT BAPTIST CHURCH ARLIE LONG RT 1, BOX 988 HEISKELL, TN 37754		(615) 494-7315	150	1	0	N
			Lat.	Long.			
	WELL	** G	036 10 10	084 00 30			
0513	NORRIS WATER COMMISSION Mr. Benny Carden P.O. BOX G Norris, TN 37828		(615) 494-7645	1,790	725	424000	C
			Lat.	Long.			
	CLEAR CK SPRING	** Y	036 12 59	084 02 58			
4	NORTH ANDERSON COUNTY U D Mr. Jack Elliott, Manager PO Box 477 Lake City, TN 37769		(615) 426-2161	9,156	3,707	1201000	C
			Lat.	Long.			
	CLINCH RIVER	** S	036 12 33	084 06 51			
	ANDERSON CO U B	** P					

				Population	Service Connections	Average Production	SYSTEM TYPE
03425	**CUMBERLAND COVE GOLF COURSE** CUMBERLAND COVE WELCOME CENTER RT 2, BOX 362 MONTEREY, TN 38574	( ) -		30	1	0	N
			Lat.	Long.			
	WELL	** G	036 05 10	085 13 40			
00848	**CUMBERLAND MTN RETREAT** FRED WORTH RT 6 CMR 39 TABOR RD CROSSVILLE, TN 38555	(615) 788-5458		79	31	0	C
			Lat.	Long.			
	WELL A	** Y	035 47 49	085 09 26			
	WELL B	** Y	035 47 46	085 09 42			
04788	**CUMBERLAND MTN RETREAT CMPGD** TONY BRITT RT 3 BOX 279 B PIKEVILLE, TN 37367	(615) 788-5458		331	130	0	N
			Lat.	Long.			
	WELL C	** G	035 48 00	085 09 35			
04356	**FAIRFIELD GLADE COMM CENTER** BARRY FIELDS PO BOX 2000 FAIRFIELD GLADE, TN 38558	(615) 484-3780		50	1	0	N
			Lat.	Long.			
	WELL	** G	036 02 12	084 53 40			
00159	**LANTANA UTILITY DISTRICT** RANDY TINCH P.O. Box 2630 Crossville, TN 38557	(615) 788-2612		4,893	1,919	255000	C
			Lat.	Long.			
	CROSSVILLE	** P					
7	**PLEASANT HILL UTILITY DISTRICT** GENETTA ILES 2296 TOESTRING VALLEY RD Pleasant Hill, TN 38578	(615) 277-5376		2,351	922	169000	C
			Lat.	Long.			
	BON DE CROFT UD	** P					
	CROSSVILLE	** P					
AVIDSON COUNTY							
00297	**CUMBERLAND UTILITY DISTRICT** DOUG SUMMERS OR THOMAS FAULK 6020 PANAMA DR HERMITAGE, TN 37076	(615) 883-8505		23,600	10,000	4445000	C
			Lat.	Long.			
	CUMBERLAND R.	** S	036 12 28	086 38 30			
004300	**E.I. DUPONT, OLD HICKORY** W R PORTER 1002 INDUSTRIAL ROAD OLD HICKORY, TN 371383693	(615) 847-6860		170	1	6862000	P
			Lat.	Long.			
	OLD HICKORY LAK	** S	036 15 45	086 39 00			
004351	**ELM HILL MARINA** EDWARD C RAFALOWSKI PO BOX 17097 NASHVILLE, TN 372170097	(615) 889-5363		100	8	0	N
			Lat.	Long.			
	WELL	** G	036 07 55	086 37 30			
000286	**HARPETH VALLEY U D** TURNER DUNN P.O. BOX 319 Nashville, TN 37221	(615) 352-7076		21,476	9,100	9310000	C
			Lat.	Long.			
	CUMBERLAND RIVE	** S	036 08 10	086 55 15			

			Population	Service Connections	Average Production	* SYSTEM TYPE
)000528	**LAKEWOOD WATER DEPARTMENT** The Hon. Charles Gann, Mayor 3401 Hadley Avenue Old Hickory, TN 37138	(615) 847-2187	1,774	752	184000	C
		Lat.	Long.			
	OLD HICKORY U D ** P					
)000424	**MADISON SUBURBAN UD** MARK JOHNSON PO BOX 175 MADISON, TN 37116	(615) 868-3201	38,433	16,285	6953000	C
		Lat.	Long.			
	CUMBERLAND RIVE ** S	036 14 27	086 42 45			
)000494	**NASHVILLE WATER DEPT** Mr. Lester Williams, Director 1600 Second Avenue, North Nashville, TN 37201	(615) 862-4583	398,689	127,000	88483000	C
		Lat.	Long.			
	CUMBERLAND-PL#1 ** S	036 09 48	086 43 31			
	CUMBERLAND PL#2 ** S	036 11 40	086 39 25			
)000529	**NASHVILLE WATER DEPT # 2** LESTER WILLIAMS 1600 SECOND AVE NORTH NASHVILLE, TN 37201	(615) 259-6425	1,180	500	101000	C
		Lat.	Long.			
	OLD HICKORY U D ** P					
)000527	**OLD HICKORY UTILITY DISTRICT** Mr. Eddie Partlow, Manager 1050 Donelson Avenue Old Hickory, TN 37138	(615) 847-2043	3,469	1,470	689000	C
		Lat.	Long.			
	CUMBERLAND RVR ** S	036 15 50	086 38 35			
DE KALB COUNTY						
)000008	**ALEXANDRIA WATER SYSTEM** RALPH AGEE, MAYOR PO BOX 227 ALEXANDRIA, TN 37012	(615) 529-2171	1,575	630	108000	C
		Lat.	Long.			
	SMITH UTIL DIST ** P					
)000188	**DEKALB UTILITY DISTRICT #1** Mr. Leo Ashburn, Chairman P.O. BOX 547 Smithville, TN 37166	(615) 597-6490	4,450	1,780	309000	C
		Lat.	Long.			
	SMITHVILLE WATE ** P					
)000833	**DEKALB UTILITY DISTRICT #2** Mr. Leo Ashburn, Chairman P.O. BOX 547 Smithville, TN 37166	(615) 597-6490	1,420	568	89000	C
		Lat.	Long.			
	SMITHVILLE ** P					
)000834	**DEKALB UTILITY DISTRICT #3** Mr. Leo Ashburn, Chairman P.O. BOX 547 Smithville, TN 37166	(615) 597-6490	598	239	46000	C
		Lat.	Long.			
	SMITHVILLE ** P					
)000835	**DEKALB UTILITY DISTRICT #4** Mr. Leo Ashburn, Chairman P.O. BOX 547 Smithville, TN 37166	(615) 597-6490	295	118	19000	C
		Lat.	Long.			
	BAXTER ** P					

REFERENCE 13

Nash. copy.

PRELIMINARY ASSESSMENT

NARRATIVE REPORT

NASHVILLE, OLD GAS COMPANY

NASHVILLE, DAVIDSON COUNTY, TENNESSEE

CERCLIS NO. TND 98 779 1340

TENNESSEE FILE NO. 19-567

PREPARED FOR THE

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF SUPERFUND (TDSF)

IN COOPERATION WITH

WASTE MANAGEMENT DIVISION

U.S. ENVIRONMENTAL PROTECTION AGENCY

DATE: FEBRUARY 18, 1994

Prepared By:	Reviewed By:	Approved By:
Tim Stewart	Brenda Apple	Nancy Thomas
Tim Stewart 2/20/94	Brenda K. Apple 2/28/94	Nancy Thomas TDSF/SAM 2/28/94

3.0 GROUNDWATER PATHWAY

3.1 Hydrogeologic Setting

The geology of the site is an intersection of karst terrain represented by Alluvial Deposits, Bigby-Cannon Limestone, and Hermitage Formation (Ref. 13).

Alluvial deposits above the levels of the flood plains consist largely of slip-off slope deposits of sand, gray to brownish-orange, very fine to fine-grained; gravel, gray to yellowish-orange and yellowish-brown, composed of pebbles and some small cobbles of chert, subangular to subrounded; and a matrix of brownish-orange, fine to very coarse-grained quartz and chert sand with some quartz granules and small pebbles (Ref. 13).

The Bigby-Cannon Limestone in this area consists of three facies-Cannon limestone, Dove-colored limestone, and Bigby limestone-which replace each other vertically and laterally. The Bigby limestone comprises zones at the top and base and in the middle of the formation; these zones are separated by relatively thin zones of Dove-colored and Cannon limestones. Thickness of formation 60 to 110 feet (Ref. 13).

The Bigby limestone is underlain disconformably, in all parts of the Nashville Basin, by the Hermitage formation. The formation is composed of medium-bedded sandy and phosphatic subgranular limestone that is accompanied locally by a small amount of shale. Many of these beds are covered with the silicified shells of Dalmanella testudinaria. The lower portion of the formation, from 12 to 20 feet thick, is composed of thin bedded earthy and sandy blue limestone whose beds are separated by seams of gray or bluish shale (Ref. 14).

3.2 Groundwater Targets

All residences and businesses within a 4-mile radius are served by the Metro (Nashville) Water Services, and all wells within 4 miles are used for irrigation/industrial use (Ref. 15).

An artesian well located at the Werthan Bag Company plant on 8th Avenue and Taylor Street is within one-mile of the site (Ref. Map).

REFERENCE 14

U . S . EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 10459152 Site ID: TND004046033

Site Name: Mid-State Plating Company, Inc.

Nature of Material:

Map:	✓	Computer Disks:	
Photos:		CD-ROM:	
Blueprints:		Oversized Report:	
Slides:		Log Book:	

Other (describe): Site Map (Drainage Map)

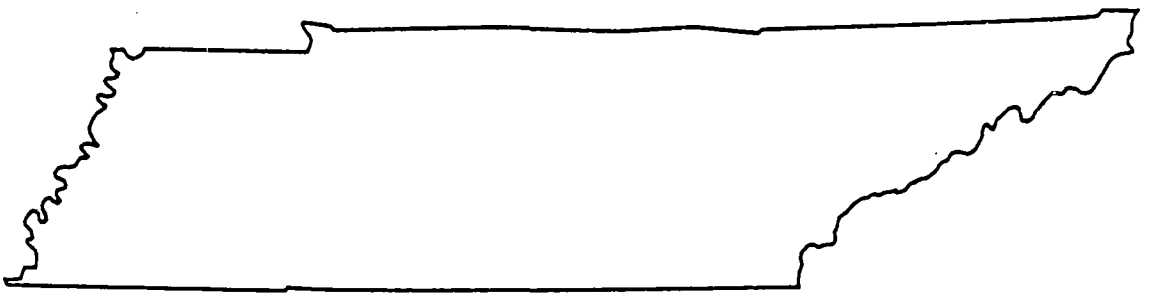
Amount of material:

Please contact the appropriate Records Center to view the material.

REFERENCE 15

Water Resources Data Tennessee Water Year 1994

by D.F. Flohr, J.T. Hamilton, J.G. Lewis, and L.B. Thomas



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-94-1
Prepared in cooperation with the State of Tennessee
and with other agencies

CONTENTS

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (s) sediment, (e) elevation, gage heights, or contents]

CUMBERLAND RIVER BASIN

034315005 CUMBERLAND RIVER AT WOODLAND STREET AT NASHVILLE, TN

LOCATION.--Lat 36°10'02", long 86°46'35", Davidson County, Hydrologic Unit 05130202, on left bank at northwest corner of Woodland Street Bridge, at Nashville, 3.5 mi downstream from Mill Creek, and at mile 190.9.

DRAINAGE AREA.--12,860 mi², approximately.

PERIOD OF RECORD.--May 1992 to current year. October 1892 to September 1954, monthly and yearly discharges published in WSP 1306 and 1726, October 1986 to September 1991, gage height, published as "at Nashville." Gage height record collected in this vicinity since 1873 are contained in reports of U.S. Weather Bureau.

GAGE.--Data collection platform and acoustic velocity meter. Datum of gage is 368.17 ft above sea level. Prior to fall of 1922 inclined and vertical staff gage at site 350 ft downstream and from fall of 1922 to Apr. 9, 1940, staff gage at site 400 ft downstream, both gages at same datum. Nov. 1, 1930, to Sept. 30, 1954, upper staff gage at former lock 1, 2.7 miles downstream was used as auxiliary gage. Prior to May 1992 at site .2 mi upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203,000 ft³/s, Jan. 1, 1927, gage height 56.2 ft; minimum gage height observed after first filling of pool at dam 1, 6.1 ft Oct. 19, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 125,000 ft³/s, at 1300 hours Mar. 29, gage height, 38.05 ft; minimum daily discharge, 4,290 ft³/s, Oct 10; minimum gage height, 16.52 ft, Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7610	5650	8770	27700	46600	79800	96100	62200	8890	22000	14100	15900
2	9100	5760	8640	24400	39800	79700	101000	62000	9540	18900	13500	16200
3	8350	5620	8270	21400	42600	80100	99500	58400	10600	18000	14400	17100
4	5820	5830	25800	20600	44100	84300	92700	46800	9900	14000	13800	15500
5	5590	6610	82200	26900	41800	83800	91700	47400	8050	12800	15300	15200
6	5700	7710	67100	34100	41800	81600	101000	47100	7880	12500	14000	12900
7	6700	6570	38800	38200	37100	77200	103000	40200	8670	10400	18400	10600
8	6190	7000	31500	61700	35400	74000	103000	44800	20100	10300	15900	10900
9	4850	6330	31900	58500	44400	88900	95600	38800	13200	9150	19100	10800
10	4290	6880	40100	46800	65100	113000	94800	42200	15900	8600	17800	12000
11	4950	7690	48500	45500	96700	111000	105000	44100	15600	8810	17600	10200
12	5160	7630	39500	43000	106000	102000	107000	39800	10900	11700	17800	8740
13	10300	6420	31200	43100	103000	96300	107000	35300	7160	11000	16600	9240
14	12100	6210	37200	40400	98100	86100	102000	34300	6830	8940	16100	11800
15	12300	9750	29700	35000	95100	74200	103000	37800	7600	9100	16400	14500
16	8380	12100	27300	34500	86700	73700	113000	37600	11100	13300	15600	14500
17	7380	12100	37100	37100	81500	73600	111000	29400	12200	12000	15700	13200
18	14100	13500	29400	35900	75400	71000	109000	20200	11000	16800	15500	10400
19	12200	15800	28900	45100	70400	69600	104000	18700	9540	12900	15800	8940
20	7390	14000	27800	44100	65100	64900	90300	19700	9090	12700	18400	7180
21	10500	9130	24500	40400	65600	56300	83800	17000	8480	12700	24600	6570
22	11400	7610	32800	40300	75600	52600	80400	17200	7880	13900	20700	7900
23	6760	6780	34500	34900	111000	56400	77800	12800	8360	13000	19000	9760
24	4630	7740	31100	31400	106000	55500	80200	10100	11600	10900	18100	12100
25	5510	7520	24300	34900	92300	58200	77300	8910	12200	12000	19100	13400
26	5910	8680	24300	55400	84500	62300	75100	8290	16300	14300	17100	7340
27	6850	6640	25600	67700	77100	89700	75700	13600	25000	18500	16900	5720
28	7780	5870	22500	80400	80600	119000	72000	11100	23400	19700	16700	6350
29	7680	7140	30800	73200	---	119000	68400	7730	20800	18600	16500	9610
30	6390	8740	40900	67500	---	112000	63500	8290	21500	17400	15500	11700
31	5250	---	31500	54500	---	97800	---	9120	---	16300	17100	---
TOTAL	237120	245010	1002480	1350600	2009400	2543600	2785900	930940	369270	421200	523100	336250
MEAN	7649	9167	32340	43570	71760	82050	92860	30030	12310	13590	16870	11210
MAX	14100	15800	82200	80400	111000	119000	113000	62200	25000	22000	24600	17100
MIN	4290	5620	8270	20600	35400	52600	63500	7730	6830	8600	13500	5720

REFERENCE 16

ENDANGERED AND THREATENED SPECIES

OF THE

SOUTHEASTERN UNITED STATES

(THE RED BOOK)

Introduction Section, Volume 1

Prepared by:

U.S. Fish and Wildlife Service
Southeast Region
Atlanta, Georgia

January 1992

Availability Unlimited
For Sale by Superintendent of Documents
Post Office Box 371954
Pittsburgh, PA 15250-7954

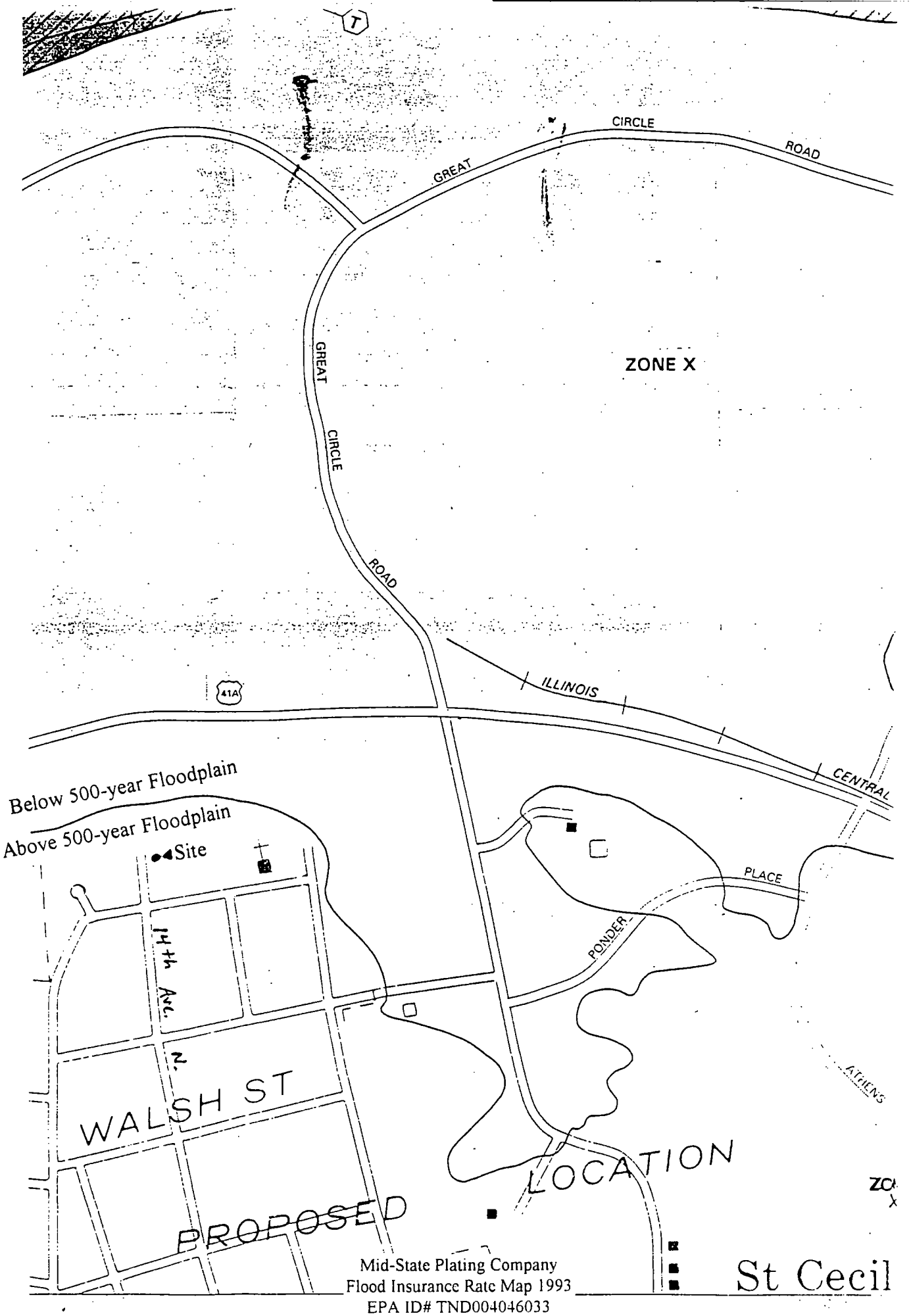
Stock Order Number: 924-003-00000-6

	General Distribution
Mussel, Appalachian monkeyface pearly (Quadrula sparsa) - E	Powell River
Mussel, birdwing pearly (Conradilla caelata) - E	Powell, Clinch, Elk and Duck Rivers
Mussel, Cumberland bean pearly (Villosa trabilis) - E	Big S. Fork of Cumberland River
Mussel, Cumberland monkeyface pearly (Quadrula intermedia) - E	Elk, Powell and Duck Rivers
Mussel, Cumberland pigtoe (Pleurobema gibberum) - E	Caney Fork River System
Mussel, dromedary pearly (Dromus dromas) - E	Powell, Clinch, Cumberland and Tennessee Rivers
Mussel, fine-rayed pigtoe pearly (Fusconaia cuneolus) - E	Powell, Clinch, Elk, Sequatchie, N. Fork Holston and Little Rivers
Mussel, green-blossom pearly (Epioblasma [=Dysnomia] torulosa gubernaculum) - E	Clinch River
Mussel, little-wing pearly (Pegias fabula) - E	Cave Creek
Mussel, orange-footed pearly (Plethobasus cooperianus) - E	Tennessee and Cumberland Rivers
Mussel, pale lilliput pearly Toxolasma [= Carunculina] cylindrella) - E	Historic; no recent TN records
Mussel, pink mucket pearly (Lampsilis orbiculata) - E	Tennessee, Clinch and Cumberland Rivers
Mussel, rough pigtoe pearly (Pleurobema plenum) - E	Clinch, Cumberland and Tennessee Rivers
Mussel, shiny pigtoe pearly (Fusconaia edgariana) - E	Powell, Clinch and Elk Rivers
Mussel, tan riffle shell (Epioblasma [=Dysnomia] walkeri) - E	Historic; no recent TN records

U.S. Fish & Wildlife Service
Division of Endangered Services List
10/26/94

COUNTY: CUMBERLAND			
BAT, INDIANA (Myotis sodalis)	POSSIBLE	MAMMAL	E
CHUB, SPOTFIN (Cyprinella (=Hybopsis) monacha)	KNOWN	FISH	TCH
ROSEMARY, CUMBERLAND (Conradina verticillata)	KNOWN	PLANT	T
SPIRAEA, VIRGINIA (Spiraea virginiana)	KNOWN	PLANT	T
WOODPECKER, RED-COCKADED (Picoides (=Dendrocopos) borealis)	KNOWN	BIRD	E
COUNTY: DAVIDSON			
BAT, INDIANA (Myotis sodalis)	POSSIBLE	MAMMAL	E
CONEFLOWER, TENNESSEE PURPLE (Echinacea tennesseensis)	KNOWN	PLANT	E
CRAYFISH, NASHVILLE (Orconectes shoupi)	KNOWN	CRUSTAC	E
MUSSEL, DROMEDARY PEARLY (Dromus dromas)	POSSIBLE	CLAM	E
MUSSEL, ORANGE-FOOTED PEARLY (Plethobasus cooperianus)	POSSIBLE	CLAM	E
MUSSEL, ROUGH PIGTOE (Pleurobema plenum)	POSSIBLE	CLAM	E
MUSSEL, TAN RIFFLESHELL (Epioblasma walkeri)	POSSIBLE	CLAM	E
MUSSEL, TUBERCULED-BLOSSOM PEARLY (Epioblasma torulosa torulosa)	POSSIBLE	CLAM	E
MUSSEL, WHITE WARTYBACK PEARLY (Plethobasus cicatricosus)	POSSIBLE	CLAM	E
POTATO-BEAN, PRICE'S (Apios priceana)	POSSIBLE	PLANT	T
PRAIRIE-CLOVER, LEAFY (Dalea foliosa (=Petalostemum foliosum))	KNOWN	PLANT	E
COUNTY: DECATUR			
BAT, GRAY (Myotis grisescens)	KNOWN	MAMMAL	E
BAT, INDIANA (Myotis sodalis)	POSSIBLE	MAMMAL	E
EAGLE, BALD (Haliaeetus leucocephalus)	KNOWN	BIRD	E
MUSSEL, ORANGE-FOOTED PEARLY (Plethobasus cooperianus)	POSSIBLE	CLAM	E
MUSSEL, PINK MUCKET PEARLY (Lampsilis orbiculata)	KNOWN	CLAM	E
MUSSEL, ROUGH PIGTOE (Pleurobema plenum)	POSSIBLE	CLAM	E
MUSSEL, WHITE WARTYBACK PEARLY	POSSIBLE	CLAM	E

REFERENCE 17



Mid-State Plating Company
Flood Insurance Rate Map 1993
EPA ID# TND004046033
TDSF# 19-572

Scale: 1" = 500'

Figure 5

REFERENCE 18

ESSELTE

EarthWise

COMPOSITIONS

Mid-State Plating, Inc.

TDSF 19-572 / EPA ID# TND004046033

Preliminary Assessment Sept. 1995

EarthWise®

Paper made from 50% recycled fibers
10% post-consumer waste

Item No.
09-4122

SEWN PAGES

PERSONAL COMMUNICATION

9-8-95 Got back with the National Weather Service and Mark Rose confirmed that no unusual air circulations are known within the distance limits.

9-8-95 Got back with Metro Nashville Air Pollution Control as Raymond Huffines (340-5653) was able to confirm that no citizen complaints etc. due to air 'contaminants' were ever received by them within the distance limits as far back as 8 yrs ago. The only complaints he said was about Metro Sewage Plant & Composting facility (Metro Nashville Air Pollution Control has jurisdiction over Nashville & Davidson County as opposed to the State of TN)

REFERENCE 19

U.S. SOIL DATA

STATE : TENNESSE

LATITUDE : 36:11:30 LONGITUDE : 86:48:19
THE STATION IS INSIDE H.U. 5130202

GROUND WATER ZONE : 7
RUNOFF SOIL TYPE : 3
EROSION : 1.5560E-03 CM/MONTH
DEPTH TO GROUND WATER BETWEEN : 3.0000E+02 AND 1.0000E+03
FIELD CAPACITY FOR TOP SOIL : 8.0000E-02
EFFECTIVE POROSITY BETWEEN : 1.0000E-02 AND 1.0000E-01
SEEPAGE TO GROUNDWATER BETWEEN : 2.7800E+02 AND 2.7800E+03 CM/MONTH
DISTANCE TO DRINKING WELL : 2.6000E+04 CM

U.S. CITY

STATE PLACE NAME FIPSCODE LATITUDE LONGITUDE
TN NASHVILLE 47037 36.1540 86.7817

Enter an option number or a procedure name (in parentheses)
or a command: HELP, HELP option, BACK, CLEAR, EXIT, TUTOR
GEMS> 1

1. Zip code
2. UTM Coordinates
3. Latitude/Longitude Coordinate (decimal degrees)
4. Latitude/Longitude Coordinate (degrees, minutes, seconds)
5. Place Name

MENU: LATITUDE/LONGITUDE: (ddmmss)

ref parmname parameter description parameter value index
1. LATITUDE Latitude in DDMMSS 361130
2. LNGITUDE Longitude in DDMMSS 864819
3. SITENAME Name of a study site Mid-State Plating
4. STATE State Identifier TN
5. YEAR Year of the census 1995
6. TYPE Type of census data POP
7. STANRING Use standard ring distance no
8. SECTORS Number of Sectors 1

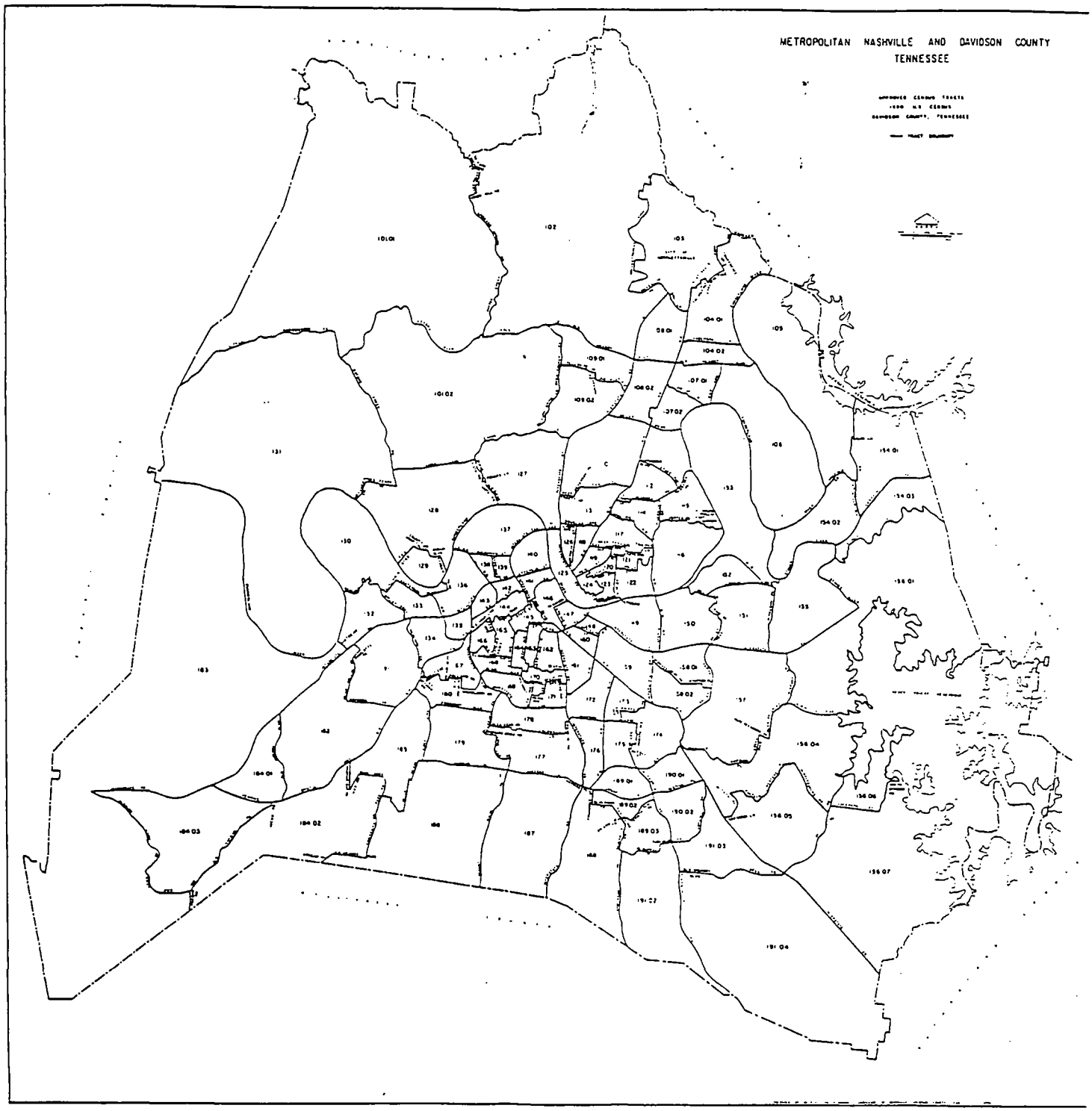
CENSUS DATA

Mid-State Plating
LATITUDE 36:11:30 LONGITUDE 86:48:19 1995 POPULATION

SECTOR

KM	0.00-.400	.400-.800	.800-1.60	1.60-3.20	3.20-4.80	4.80-6.40	TOTALS
S 1	0	2682	2943	20774	36016	51054	113469
RING TOTALS	0	2682	2943	20774	36016	51054	113469

REFERENCE 20



Mid-State Plating Company
Census Tracts 1990
EPA ID# TND004046033
TDSF# 19-572

Figure 6

REFERENCE 21

ESSELTE

EarthWise

COMPOSITIONS

Mid-State Plating, Inc.

TDSF 19-572 / EPA ID# TND004046033

Preliminary Assessment Sept. 1995

EarthWise®

Paper made from 50% recycled fibers
10% post-consumer waste

Item No. 09-4122

Manufactured by Esselte Pendaflex Corporation, Garden City, N.Y. 11530

SEWN PAGES

PERSONAL COMMUNICATION

9-8-95 Got back with the National Weather Service and Mark Rose confirmed that no unusual air circulations are known within ~~the~~ distance limits.

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REFERENCE 22

Memorandum

DATE: September 28, 1995

TO: DSF Files

FROM: Brenda Apple, NFO

RE: Mid-state Plating, Inc. # 19-572

Nashville, Davidson County

Subject: Telephone Conversation w/ Patricia Cunningham

I called Mrs. Cunningham on 9-26-95 to confirm present ownership of the Mid-state Plating site. We discussed the following:

1. Q. Does Patricia Cunningham still own the property at 2424 14th Avenue North?

   A. Yes

2. Q. What are present uses of the building?

   A. Used for storage only.

3. Q. When she bought the property, there were several drums, vats and sludge material that had to be disposed . Does she know what became of the waste?

   A. The drum contents were combined into larger containers which were disposed of by some company through the bankruptcy court. The sludge waste was taken to Electroplating, Inc. Mr. Cunningham would know more details if I wanted to call back in afternoon.

APPENDIX A

U . S . EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 10459752 Site ID: IND004046033

Site Name: MID-STATE Plating Co., Inc.

Nature of Material:

Map:		Computer Disks:	
Photos:	✓	CD-ROM:	
Blueprints:		Oversized Report:	
Slides:		Log Book:	

Other (describe): Site Photos

Amount of material:

Please contact the appropriate Records Center to view the material.

APPENDIX B

U . S . EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 10459752 Site ID: IND004046033

Site Name: MID-STATE Plating Co., Inc.

Nature of Material:

Map:		Computer Disks:	
Photos:	✓	CD-ROM:	
Blueprints:		Oversized Report:	
Slides:		Log Book:	

Other (describe): Site Photos

Amount of material:

Please contact the appropriate Records Center to view the material.

APPENDIX C

OMB Approval Number: 2050-0095
Approved for Use Through: 4/95

Site Name: Mid-State Plating Company
CERCLIS ID No.: TND004046033
Street Address: 2424 14th Avenue North
City/State/Zip: Nashville , TN 37208

Investigator: Obi Nkpa
Agency/Organization: TDEC/TDSF
Street Address: 401 Church Street
City/State: Nashville, TN

Date: 08-29-95

STE CHARACTERISTICS

Waste Characteristics (WC) Calculations:

1 NW drum/dumpster	Contaminated soil	WQ value	maximum
Area	1.00E+03 sq ft	2.94E-02	2.94E-02
2 East runoff area	Contaminated soil	WQ value	maximum
Area	1.64E+04 sq ft	4.82E-01	4.82E-01
3 North runoff area	Contaminated soil	WQ value	maximum
Area	5.44E+02 sq ft	1.60E-02	1.60E-02

WQ Total 5.28E-01

** Only First WC Page Is Printed ** | Waste Characteristics Score: WC = 18

Ground Water Pathway Criteria List
Suspected Release

Are sources poorly contained? (y/n/u)	Y
Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	N
Is precipitation heavy? (y/n/u)	N
Is the infiltration rate high? (y/n/u)	N
Is the site located in an area of karst terrain? (y/n)	Y
Is the subsurface highly permeable or conductive? (y/n/u)	Y
Is drinking water drawn from a shallow aquifer? (y/n/u)	N
Are suspected contaminants highly mobile in ground water? (y/n/u)	Y
Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u)	N

Other criteria? (y/n) N

SUSPECTED RELEASE? (y/n) N

Summarize the rationale for Suspected Release:

Ground Water Pathway Criteria List
Primary Targets

Is any drinking water well nearby? (y/n/u)	N
Has any nearby drinking water well been closed? (y/n/u)	U
Has any nearby drinking water well user reported foul-testing or foul-smelling water? (y/n/u)	N
Does any nearby well have a large drawdown/high production rate? (y/n/u)	N
Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance? (y/n/u)	N
Does analytical or circumstantial evidence suggest contamination at a drinking water well? (y/n/u)	N
Does any drinking water well warrant sampling? (y/n/u)	N
Other criteria? (y/n)	N
PRIMARY TARGET(S) IDENTIFIED? (y/n)	N

Summarize the rationale for Primary Targets:

All the wells are either for commercial or industrial use

Ref: Tenneessee Division of Water Supply Water Well Log

GROUND WATER PATHWAY SCORESHEETS

Pathway Characteristics		Ref.
Do you suspect a release? (y/n)	No	
Is the site located in karst terrain? (y/n)	Yes	
Depth to aquifer (feet):	40	
Distance to the nearest drinking water well (feet):	22000	

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	0		
2. NO SUSPECTED RELEASE		500	
LR =	0	500	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0		
4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) N	0	0	
5. NEAREST WELL	0	0	
6. WELLHEAD PROTECTION AREA None within 4 Miles	0	0	
7. RESOURCES	5	0	
T =	5	0	

WASTE CHARACTERISTICS		
WC =	18	0

GROUND WATER PATHWAY SCORE:	1

Ground Water Target Populations

Primary Target Population Drinking Water Well ID	Dist. (miles)	Population Served	Reference	Value
None				
			Total	

*** Note : Maximum of 5 Wells Are Printed ***

Secondary Target Population Distance Categories	Population Served	Reference	Value
0 to 1/4 mile	0		0
Greater than 1/4 to 1/2 mile	0		0
Greater than 1/2 to 1 mile	0		0
Greater than 1 to 2 miles	0		0
Greater than 2 to 3 miles	0		0
Greater than 3 to 4 miles	0		0
		Total	0

portionment Documentation for a Blended System

Surface Water Pathway Criteria List
Suspected Release

Is surface water nearby? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	N
Is the drainage area large? (y/n/u)	Y
Is rainfall heavy? (y/n/u)	N
Is the infiltration rate low? (y/n/u)	Y
Are sources poorly contained or prone to runoff or flooding? (y/n/u)	Y
Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u)	Y
Is vegetation stressed along the probable runoff path? (y/n/u)	N
Are sediments or water unnaturally discolored? (y/n/u)	N
Is wildlife unnaturally absent? (y/n/u)	N
Has deposition of waste into surface water been observed? (y/n/u)	N
Is ground water discharge to surface water likely? (y/n/u)	Y
Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u)	N
Other criteria? (y/n) N	
SUSPECTED RELEASE? (y/n)	Y

Summarize the rationale for Suspected Release:

Release is suspected due to the short overland flow, the steep slope to surface drainage, and the known spills.

Surface Water Pathway Criteria List
Primary Targets

Is any target nearby? (y/n/u) If yes: Y
- Y Drinking water intake
- Y Fishery
- Y Sensitive environment

Has any intake, fishery, or recreational area been closed? (y/n/u) N

Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target? (y/n/u) N

Does any target warrant sampling? (y/n/u) If yes: Y
- N Drinking water intake
- N Fishery
- Y Sensitive environment

Other criteria? (y/n) N

PRIMARY INTAKE(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Intakes:

continued -------

continued -------

Other criteria? (y/n) N

PRIMARY FISHERY(IES) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Fisheries:

Other criteria? (y/n) N

PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Sensitive Environments:

Presence of mussel population which are listed as endengered.

SURFACE WATER PATHWAY SCORESHEETS

Pathway Characteristics		Ref.
Do you suspect a release? (y/n)	Yes	
Distance to surface water (feet):	500	
Flood frequency (years):	>500	
What is the downstream distance (miles) to:		
a. the nearest drinking water intake?	13.0	
b. the nearest fishery?	0.2	
c. the nearest sensitive environment?	0.5	

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550		
2. NO SUSPECTED RELEASE		0	
LR =	550	0	

Drinking Water Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake.			
4. PRIMARY TARGET POPULATION 0 person(s)	0		
5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N	1633	0	
6. NEAREST INTAKE	0	0	
7. RESOURCES	5	0	
T =	1638	0	

Drinking Water Threat Target Populations

Intake Name	Primary (y/n)	Water Body Type/Flow	Population Served	Ref.	Value
1 HVUD	N	>10000 cfs	20885	12	0
None					

Total Primary Target Population Value 0
Total Secondary Target Population Value 1633

*** Note : Maximum of 6 Intakes Are Printed ***

Apportionment Documentation for a Blended System

Human Food Chain Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
8. Determine the water body type and flow for each fishery within the target limit.			
9. PRIMARY FISHERIES	0		
10. SECONDARY FISHERIES	210	0	
T =	210	0	

Human Food Chain Threat Targets

Fishery Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 Cumberland River	N	>10000 cfs		12
None				

Total Primary Fisheries Value	0
Total Secondary Fisheries Value	210

*** Note : Maximum of 6 Fisheries Are Printed ***

Environmental Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
11. Determine the water body type and flow (if applicable) for each sensitive environment.			
12. PRIMARY SENSITIVE ENVIRONMENTS	300		
13. SECONDARY SENSITIVE ENVIRONS.	0	0	
T =	300	0	

Environmental Threat Targets

Sensitive Environment Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 cumberland river	Y	primary sens. envir.		300

Total Primary Sensitive Environments Value 300
Total Secondary Sensitive Environments Value 0
*** Note: Maximum of 6 Sensitive Environments Are Printed ***

rface Water Pathway Threat Scores

Threat	Likelihood of Release(LR) Score	Targets(T) Score	Pathway Waste Characteristics (WC) Score	Threat Score LR x T x WC / 82,500
Drinking Water	550	1638	32	100
Human Food Chain	550	210	32	45
Environmental	550	300	32	60

SURFACE WATER PATHWAY SCORE: 100

Soil Exposure Pathway Criteria List
Resident Population

Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/n/u)	Y
Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator? (y/n/u)	U
Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities? (y/n/u)	Y
Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems? (y/n/u)	U
Does any neighboring property warrant sampling? (y/n/u)	Y
Other criteria? (y/n)	N
RESIDENT POPULATION IDENTIFIED? (y/n)	Y

Summarize the rationale for Resident Population:

Distance to residence directly to the south of the site property is approximately 35 feet and some some areas in this direction are negative gradient which, although not as steep as on the east side of the site, represents a lateral migratory route under a rainfall event.

Ref: Site Sketch

SOIL EXPOSURE PATHWAY SCORESHEETS

Pathway Characteristics		Ref.
Do any people live on or within 200 ft of areas of suspected contamination? (y/n)	Yes	
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination? (y/n)	Yes	
Is the facility active? (y/n):	No	

LIKELIHOOD OF EXPOSURE	Suspected Contamination	References
1. SUSPECTED CONTAMINATION LE =	550	

Targets

2. RESIDENT POPULATION 35 resident(s) 0 school/daycare student(s)	350	
3. RESIDENT INDIVIDUAL	50	
4. WORKERS None	0	
5. TERRES. SENSITIVE ENVIRONMENTS	0	
6. RESOURCES	5	
T =	405	

WASTE CHARACTERISTICS

WC = 18

RESIDENT POPULATION THREAT SCORE: 49

NEARBY POPULATION THREAT SCORE: 2

Population Within 1 Mile: 10,001 - 50,000

SOIL EXPOSURE PATHWAY SCORE: 51

Soil Exposure Pathway Terrestrial Sensitive Environments

Terrestrial Sensitive Environment Name	Reference	Value
None		
Total Terrestrial Sensitive Environments Value		

*** Note : Maximum of 7 Sensitive Environments Are Printed ***

Air Pathway Criteria List
Suspected Release

Are odors currently reported? (y/n/u)	N
Has release of a hazardous substance to the air been directly observed? (y/n/u)	U
Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u)	U
Does analytical/circumstantial evidence suggest release to air? (y/n/u)	U
Other criteria? (y/n) N	
SUSPECTED RELEASE? (y/n)	N

Summarize the rationale for Suspected Release:

AIR PATHWAY SCORESHEETS

Pathway Characteristics		Ref.
Do you suspect a release? (y/n)	No	
Distance to the nearest individual (feet):	0	

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	0		
2. NO SUSPECTED RELEASE		500	
LR =	0	500	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0		
4. SECONDARY TARGET POPULATION	0	52	
5. NEAREST INDIVIDUAL	0	20	
6. PRIMARY SENSITIVE ENVIRONS.	0		
7. SECONDARY SENSITIVE ENVIRONS.	0	0	
8. RESOURCES	0	5	
T =	0	77	

WASTE CHARACTERISTICS

WC =	0	18

AIR PATHWAY SCORE: 8

r Pathway Secondary Target Populations

Distance Categories	Population	References	Value
Onsite	0		0
Greater than 0 to 1/4 mile	1000		13
Greater than 1/4 to 1/2 mile	2682		9
Greater than 1/2 to 1 mile	2943		3
Greater than 1 to 2 miles	20774		8
Greater than 2 to 3 miles	36016		12
Greater than 3 to 4 miles	51054		7
	Total Secondary Population Value		52

Air Pathway Primary Sensitive Environments

Sensitive Environment Name	Reference	Value
None		
Total Primary Sensitive Environments Value		

*** Note : Maximum of 7 Sensitive Environments Are Printed***

Air Pathway Secondary Sensitive Environments

Sensitive Environment Name	Distance	Reference	Value
None			
Total Secondary Sensitive Environments Value			

SITE SCORE CALCULATION	SCORE
GROUND WATER PATHWAY SCORE:	1
SURFACE WATER PATHWAY SCORE:	100
SOIL EXPOSURE PATHWAY SCORE:	51
AIR PATHWAY SCORE:	8
SITE SCORE:	56

SUMMARY

1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? No

   If yes, identify the well(s).

   If yes, how many people are served by the threatened well(s)? 0

2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?
   A. Drinking water intake — No
   B. Fishery — No
   C. Sensitive environment (wetland, critical habitat, others) — Yes

   If yes, identity the target(s).
   Mussel population in the Cumberland River.

3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? Yes

   If yes, identify the properties and estimate the associated population(s)
   Fourteen residential lots; estimated population is 350.

4. Are there public health concerns at this site that are not addressed by PA scoring considerations? Yes

   If yes, explain:
   Site is not completely fenced, hence direct body cotact (soil exposure refers) is a possibility.

REFERENCE LIST